

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SAMSUNG ELECTRONICS CO., LTD.)
AND SAMSUNG SEMICONDUCTOR, INC.,)

Plaintiffs and Counter-Defendants,)

v.)

NETLIST, INC.,)

Defendant and Counter-Plaintiff.)

NETLIST, INC.,)

Counter-Plaintiff,)

v.)

GOOGLE LLC AND ALPHABET INC.,)

Counter-Defendants.)

Redacted - Public Version

C.A. No. 21-1453-RGA-JLH

[REDACTED]

**COUNTER-PLAINTIFF NETLIST, INC.'S OPPOSITION TO GOOGLE LLC AND
ALPHABET INC.'S MOTION FOR LEAVE TO FILE REPLY IN RESPONSE TO
NETLIST, INC.'S OPPOSITION TO SAMSUNG ELECTRONICS CO. LTD AND
SAMSUNG SEMICONDUCTOR, INC'S MOTION TO STAY**

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Dated: June 28, 2023

This Court should not grant Google’s Motion for Leave to File a Reply in Response to Netlist’s Opposition to Samsung’s Motion to Stay. If the Court does grant the motion, it should permit Netlist to file a sur-reply.

Google’s purported “reply” brief, which is filed a day after reply briefs were actually due, is nothing more than an attempt to re-open briefing on its Motion to Dismiss. Whereas Netlist’s opposition brief focused on the specific issues before this Court raised by Samsung’s Motion to Stay—specifically, the prejudice Netlist will incur as a result of an unwarranted stay—Google does not hide the fact it is solely addressing the already-argued motion to dismiss. *See* D.I. 137-03 at 1 (arguing Netlist’s arguments “do not support the denial of Google’s Motion to Dismiss”), at 2 (“Thus, for the reasons set forth in Google’s pending Motion to Dismiss, the counterclaims against Google should be dismissed or at a minimum severed and stayed pending the claims against Samsung.”), at 3 (“Netlist’s newly crafted arguments for injunctive relief do not support denial of Google’s Motion to Dismiss or Samsung’s Motion.”).

Moreover, Google’s claim that Netlist’s opposition is directed at Google’s Motion to Dismiss is incorrect. For example, the portion of the brief Google quotes wherein Netlist argues that it “intends to seek injunctive relief at least against Google” is directed at explaining why Netlist would be prejudiced by the indefinite stay proposed by Samsung. *See* D.I. 127 at 10 (“the *stay* prevents Netlist from seeking an injunction against Google.”). Netlist does not argue that this is a basis on which the Court should deny Google’s Motion to Dismiss. Nor does Netlist suggest the Court should consider any of its arguments opposing **Samsung’s** Motion to Stay in deciding **Google’s** Motion to Dismiss. Neither Counter-Defendant joined the other’s motion. There is no reason the Court would import Netlist’s arguments from one motion to the other. Accordingly, the Court should not permit Google to respond to Netlist’s arguments opposing Samsung’s Motion

because it is not a party to that Motion. As such, Google's arguments regarding the Motion to Dismiss have no connection to the present Motion to Stay and should not be considered.

If this Court grants Google leave to file a reply, it should also grant Netlist leave to file a sur-reply. Netlist has not had the opportunity to respond to any of Google's arguments. Google provides no authority supporting its request that this Court grant it leave to file a Reply based on briefing for *another* motion. However, if the Court grants Google leave to file a reply, Google's cited cases support permitting Netlist to file a sur-reply to respond to Google's new arguments. *EMC Corp. v. Pure Storage, Inc.*, 154 F. Supp. 3d 81, 103 (D. Del. 2016) (granting leave to file *sur-reply* where reply brief raised new arguments and legal authority); *Endo Pharm. Inc. v. Actavis Inc.*, C.A. No. 14-1381-RGA, 2017 WL 3731001, at *2 n.3 (D. Del. Aug. 30, 2017) (granting leave to file *sur-reply* where reply brief raised new arguments). Netlist seeks leave only to respond to the new issues raised by Google for the first time in the context of its Motion to Dismiss. In line with this, Netlist's proposed sur-reply is attached to this brief as Exhibit A.

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CERTIFICATE OF SERVICE

I, Emily S. DiBenedetto, hereby certify that on June 28, 2023, this document was served on Samsung-Netlist-COV@cov.com, qe-netlistvgoogle@quinnemanuel.com and on the persons listed below in the manner indicated:

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| Defendant and Counter-Plaintiff. |) | |
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| Counter-Plaintiff, |) | |
| |) | |
| v. |) | |
| |) | |
| GOOGLE LLC AND ALPHABET INC., |) | |
| |) | |
| Counter-Defendants. |) | |

ORDER

On this _____ day of _____, 2023, the Court having considered Google LLC and Alphabet Inc.'s Motion for Leave to File Reply in Response to Netlist, Inc.'s Opposition to Defendants' Motion to Stay (D.I. 137), and all papers and argument submitted in connection therewith;

IT IS ORDERED that the motion is DENIED. Counter-Defendants Google LLC and Alphabet Inc. may not file and serve the reply brief attached as Exhibit A to their motion.

Dated: _____

United States District Court Judge

Exhibit A

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NETLIST, INC.,)

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v.)

GOOGLE LLC AND ALPHABET INC.,)

Counter-Defendants.)

C.A. No. 21-1453-RGA-JLH

**COUNTER-PLAINTIFF NETLIST, INC.'S SUR-REPLY IN SUPPORT OF ITS
OPPOSITION TO COUNTER-DEFENDANTS' MOTION TO DISMISS**

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Netlist, Inc.’s (“Netlist’s”) opposition explains why a stay as to the ‘523 patent in this case is unwarranted, inefficient, and would cause severe prejudice to Netlist. Google LLC and Alphabet Inc.’s (“Google’s”) reply brief does not dispute any of those conclusions. D.I. 137, Exhibit A. Rather, Google is using its “reply” on a motion to stay it did not file, as an improper tool for making arguments relating to its fully briefed motion to dismiss. D.I. 63. Nevertheless, Netlist responds to Google’s arguments below.

I. The Evidence Shows Google Has a [REDACTED], And Google and Samsung Have Repeatedly and Knowingly Taken Netlist’s Technology

Google claims that Netlist has only identified attorney argument to support its contentions that Google has taken Netlist’s technology and that Samsung and Google have sought to destroy Netlist’s business. D.I. 137-3 at 4. This is wrong. Netlist identified substantial evidence of both, including that Netlist presented its LRDIMM technology to Samsung and Google, *see, e.g.*, D.I. 127-03 (Netlist presentation to Samsung disclosing LRDIMM technology); D.I. 127-05 (Netlist identifying its proprietary LRDIMM designs as being improperly disclosed to JEDEC participants); 127-04 (Netlist presentation to Google regarding “Load Reduction DIMM” and identifying the “Benefits of “Load Reduction DIMMs”); D.I. 127-08 (Netlist presentation to Samsung sharing the design of Netlist’s practicing HyperCloud design).

With respect to [REDACTED], as Google knows, Netlist has identified specific documents in its interrogatory responses that show [REDACTED]

[REDACTED] Ex. 1 (Netlist’s Responses to Second Set of Interrogatories) at 12 (identifying 7 documents detailing the history of the Netlist/Google relationship, [REDACTED])

The parties will explore these facts further in discovery. But for Google to tell the Court that these

statements are unsupported by fact is incorrect. For example, Google's limited document production to date indicates that Google requests that its manufacturing partners [REDACTED]

[REDACTED] See Ex. 2 at GNLP-DEL-00007732, 00007734 [REDACTED]

[REDACTED] Netlist expects discovery to yield additional examples of such product requirement documents, which this document itself suggests. See *id.* [REDACTED]

[REDACTED]

II. Google Has Refused Discovery Into Its [REDACTED]

Google contends that Netlist has not provided evidence that Google [REDACTED]

[REDACTED], because the [REDACTED]

[REDACTED] D.I. 137-3 at 1-2. Google has narrowly construed the term "Accused Products" and has refused all discovery into products "that operate in a substantially similar manner" as the accused products in this case. This is despite the fact that Google claims the basis for its refusal to produce this discovery is that "Netlist's infringement contentions do not suggest what [the Accused Products] could be beyond the Samsung devices it has accused." Ex. 3 (Perlson June 20, 2023 Letter); see also Ex. 4 (2023-03-17 Google's Responses to Netlist's First Set of Interrogatory Nos. 1-10) at 3. Of course, Netlist cannot provide claim charts on products other than Samsung-supplied LRDIMMs because this is the only product on which technical information has been produced and the only product for which there is public information that Google uses. Google is in one breath refusing to provide discovery on the DIMM products that operate in a substantially similar manner and in the other breath announcing that the absence of this evidence is a basis on which its motion to dismiss should be granted. The parties are continuing to meet and confer over these discovery requests, and this will

likely be the subject of a motion to compel. *See Invensas Corp. v. Renesas Elecs. Corp.*, 287 F.R.D. 273, 281 (D. Del. 2012) (declining to adopt “bright-line proposition that, in all cases, ‘a plaintiff cannot take discovery on products it has not accused of infringement.’”). Courts in this district have found that a patentee may be entitled to discovery on non-accused products based on “(1) as to relevance, the specificity with which the plaintiff has articulated how the unaccused products are relevant to its existing claims of infringement (and how they are thus “reasonably similar” to the accused products at issue in those claims); (2) whether the plaintiff had the ability to identify such products via publicly available information prior to the request and (3) the nature of the burden on defendant(s) to produce the type of discovery sought.” *Id.* Google’s [REDACTED] [REDACTED] fit these factors, and Google’s efforts to hide this discovery does not support its Motion to Dismiss (D.I. 63) or Samsung’s Motion to Stay (D.I. 115).

Brown v. Google LLC, No. 20-cv-03664 (N.D. Cal. May 31, 2022) (No. 593-3) is on point. Ex. 5. That case involved allegations that Google tracks the behavior of users of the incognito mode of its browser. Google denied those allegations, and declined to disclose the existence of “Incognitodetection bits to identify Incognito traffic.” *Id.* at ¶ 131. It did so because whoever was in charge of the production determined that the bits were not “reliabl[e].” *Id.* at ¶ 129. In its order granting discovery sanctions, including an adverse inference at trial, the court explained that “Google was not justified in unilaterally deciding not to provide discovery regarding the bits.” The Court need not resolve this issue now. But the suggestion that Google has provided fulsome discovery that proves it does not [REDACTED] is incorrect.

III. Netlist Is Seeking An Injunction Against Google

Google suggests that Netlist is not seeking an injunction against it. D.I. 137-3 at 2-3. Google’s purported basis is a statement Netlist made in a discovery letter to this Court, and that Netlist’s operative pleading does not use the word “injunction.” Google is wrong for several

reasons. Netlist's statement to the Court concerned Netlist's views of its case against Samsung, not Google. That discovery dispute solely concerned Netlist and Samsung, and neither Netlist nor Samsung raised any issues with Google in those dispute letters. See D.I. 97, 98. Netlist has unequivocally sought equitable relief in the form of an injunction against Google at all times in this case, including in its interrogatory responses. Ex. 1 (Netlist Rog Responses to Google) at 16-17. Google's suggestion that Netlist is not seeking an injunction because Netlist's counterclaims only refer to "equitable relief" and not specifically an "injunction" is unavailing. By seeking equitable relief, Netlist has reserved the right to seek a permanent injunction. *Genentech, Inc. v. Amgen Inc.*, 2019 WL 3290167, *3 (D. Del. 2019) ("An injunction is a form of equitable relief"). Google cites no authority suggesting otherwise.

Google argues that Netlist's concerns regarding Google purchasing products from other sources is "speculative" and thus cannot support an injunction. That, too, is wrong, and Google's reliance on *Koninklijke* is misplaced. D.I. 137-3 at 3. In that case, Thales sought an injunction enjoining *Koninklijke* from seeking an exclusion order from the ITC, and alleged harm on the basis that "customers merely express[ed] concern that a potential future ITC exclusion order could affect Thales' ability to deliver products down the road." *Koninklijke Philips N.V. v. Thales DIS AIS USA LLC*, 39 F.4th 1377, 1380 (Fed. Cir. 2022). The Federal Circuit noted that "Thales did not present any evidence that it lost customers, had customers delay purchases, or struggled to acquire new business because of the ongoing ITC proceedings," and that allegations of living under a "cloud" of an exclusion order is not enough to demonstrate harm. *Id.* Here, Netlist will provide concrete evidence of how its place in the market and its ability to sell products has been harmed by Google's actions. Google does not suggest that this evidence will be insufficient to demonstrate harm. Google also does not dispute that it will purchase infringing products from other sources.

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EXHIBIT 1

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NETLIST, INC.’S OBJECTIONS AND RESPONSES TO SAMSUNG ELECTRONICS CO., LTD., SAMSUNG SEMICONDUCTOR, INC., GOOGLE LLC, AND ALPHABET INC.’S SECOND SET OF INTERROGATORIES (NOS. 19-21)

Pursuant to Federal Rules of Civil Procedure 26 and 33 and the applicable Local Rules of the U.S. District Court for the District of Delaware, Defendant and Counter-Plaintiff Netlist, Inc., by undersigned counsel, hereby objects and responds as follows to Plaintiffs and Counter-Defendants Samsung Electronics Co., Ltd. and Samsung Semiconductor, Inc. (collectively “Samsung”) and Counter-Defendants Google LLC and Alphabet Inc. (collectively, “Google” and together with Samsung, collectively “Counter-Defendants”) Second Set of Interrogatories (No. 19-21) (“Interrogatories”), served on April 28, 2023.

20. Netlist objects to the definition of “Identify,” “Identity,” “Identification,” and related terms and instructions to the extent that it requests information that is outside Netlist’s possession, custody, or control; renders Counter-Defendants’ interrogatories overly broad and unduly burdensome; and purports to require Netlist to take action or to provide information not required by, or which exceeds the scope of, the Federal Rules of Civil Procedure.

21. Netlist objects to each Interrogatory to the extent it fails to specify any reasonable temporal or geographic limitation and seeks information unrelated to the relevant temporal or geographic scope of this matter. Unless otherwise specifically stated, absent good cause to the contrary, Netlist will limit its search and responses to the period starting on or after the earliest filing date of the patents-in-suit, March 29, 2014.

OBJECTIONS AND RESPONSES TO SPECIFIC INTERROGATORIES

INTERROGATORY NO. 19:

Describe the complete factual and legal bases for Your contentions that Samsung and Google have willfully infringed the Asserted Patents and that You are entitled to enhanced damages under 35 U.S.C. § 284.

RESPONSE TO INTERROGATORY NO. 19:

Netlist incorporates its General Objections as though fully set forth herein. Netlist objects to this Interrogatory to the extent that it seeks information that is exempt from discovery under the attorney-client communication privilege, the attorney-work-product doctrine, or any other applicable privilege, immunity, or protection as provided by any applicable law. Netlist objects to this Request on the ground that it is overly broad, unduly burdensome, vague, ambiguous, and not proportional to the needs of this case. In particular, Netlist objects to the term “complete factual and legal bases” as vague, ambiguous, overly broad, and subject to multiple meanings. Netlist objects to this Interrogatory on the ground that it is compound and consisting of multiple discrete subparts, each constituting a separate Interrogatory. Fed. R. Civ. P. 33(a)(1); D. Del. L. R. 26.1(a).

[REDACTED]

While Netlist took steps to keep its DxD/LRD technologies and distributed buffer architecture confidential, in October 2008, at a JEDEC meeting, TI presented Netlist's distributed buffer concept with a topology substantially similar to presentations and designs Netlist had previously shared with TI.¹⁰ Netlist brought a lawsuit against TI for misappropriation of Netlist's trade secrets and breach of the non-disclosure agreement. *Netlist, Inc. v. Tex. Instr., Inc.*, No. 108-cv-127991 (Cal. Superior Ct. November 18, 2008). Netlist's technologies and trade secrets were leaked to the industry, and JEDEC adopted the distributed buffer architecture as one key section of the standards for DDR4 DIMMs.

[REDACTED]

[REDACTED] NL-SS-1453_00060073-93. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] NL-SS-1453_00060028; NL-SS-1453_00060029-70; NL-SS-1453_00060071-72; NL-SS-1453_00060094-112; NL-SS-1453_00060113-119. [REDACTED]

[REDACTED]

[REDACTED] NL-SS-1453_00060073-93; NL-SS-1453_00060120-123. [REDACTED]

[REDACTED]

[REDACTED]

⁹ NETLIST_SAMSUNG_EDTX00054708-54715 (November 2008)

¹⁰ See NETLIST_SAMSUNG_EDTX00056232-56235; NETLIST_SAMSUNG_EDTX00056569-56630; NETLIST_SAMSUNG_EDTX00056651-56690; NETLIST_SAMSUNG_EDTX000563621-63624.

[REDACTED]. Netlist objects to this Request on the ground that it is overly broad, unduly burdensome, vague, ambiguous, and not proportional to the needs of this case. In particular, Netlist objects to the terms “required portions of one more JEDEC Standards,” “complete factual and legal bases,” and “most knowledgeable” as vague, ambiguous, overly broad, and subject to multiple meanings. Netlist objects to this Interrogatory as calling for a legal conclusion. Netlist further objects to this Interrogatory to the extent it seeks premature expert discovery.

Subject to and without waiving the foregoing General and Specific Objections, Netlist responds as follows: the determination of whether a patent is essential to a standard requires expert analysis and claim construction to determine the exact scope of the claims and compare that scope to the relevant standard. Claim construction has not begun yet in this action, and Netlist will serve its technical reports in accordance with the Court’s Scheduling Order (D.I. 61 at ¶ 8(f)). Netlist’s investigation is ongoing, and Netlist reserves the right to supplement this response.

INTERROGATORY NO. 21:

Describe the complete factual and legal bases for each form of equitable relief (including injunctive relief) You seek in This Litigation.

RESPONSE TO INTERROGATORY NO. 21:

Netlist incorporates its General Objections as though fully set forth herein. Netlist objects to this Interrogatory to the extent that it seeks information that is exempt from discovery under the attorney-client communication privilege, the attorney-work-product doctrine, or any other applicable privilege, immunity, or protection as provided by any applicable law. Netlist objects to this Interrogatory as broad, overly burdensome and disproportionate to the needs of the case. In particular, Netlist objects to the phrase “complete factual and legal bases” as vague, ambiguous, and subject to multiple meanings.

[REDACTED]

Subject to and without waiving the foregoing General and Specific Objections, Netlist responds as follows:

Netlist incorporates its response to Interrogatory No. 19 as if full restated herein. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] NETLIST_SAMSUNG_EDTX00037348; NETLIST_SAMSUNG_EDTX00042433.

[REDACTED]

[REDACTED] NL-SS-1453_00059343-347; NL-SS-1453_00060124-296; NL-SS-1453_00060297-298.

[REDACTED]

[REDACTED]

[REDACTED] NL-SS-1453_00001577-96; NL-SS-1453_00001414-32.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Netlist has suffered and/or will continue to suffer irreparable injuries due to Counter-Defendants' direct and indirect infringing activities for which money damages are inadequate to compensate, including loss of customers and market share.

[REDACTED]

For example, [REDACTED]

[REDACTED] Netlist's DIMM designs were copied and standardized by Samsung and others, and purchased and used by Google. Samsung exploited Netlist's high-end technology into a watered-down commodity product, destroying Netlist's business and preventing returns on its proprietary solutions. Allowing Counter-Defendants to continue selling the accused infringing products will continue to significantly diminish Netlist's market share and cause price erosion. The public interest is best served by granting Netlist's requested injunctive relief to enforce its valid and infringed patents. For example, Google's repeated attempts to indeterminately delay adjudication evidences its attempt to evade an injunction. *See*, D.I. 63, 64, 106, 108. Further, as the industry moves to DDR5, DDR4 LRDIMMs may be obsolete by the time of trial in 2025, preventing Netlist's interest in prompt enforcement of its patent rights.

Further, Google can purchase or assemble memory modules with similar designs from different sources because there are a large number of entities that can supply DIMMs to Google or its contractors who assemble servers. *See*, <https://www.newegg.com/p/pl?d=DDR4+LRDIMM> (listing DIMM manufactures including Samsung, Micron, Kingston, Crucial, SK Hynix, Supermicro, NEMIX RAM, Brute Networks, HP, Arch Memory, Axiom, Ballistix, and Lenovo). Because of Google's vast options for sourcing infringing products, a judgment against Samsung's accused products alone may not be sufficient to prevent Google from sourcing its modules from other manufacturers thereafter. Further, importation and use of Samsung-branded DIMMs reflects only a portion of the total liability that Google faces, and does not prevent Google from purchasing, building, or otherwise using infringing products from other sources. Thus, obtaining an injunction against Google is necessary to prevent Google from making, using, selling, or importing unlicensed products.



Netlist's investigation is ongoing, and Netlist reserves the right to supplement this response.

As to objections and contentions only,

/s/ Emily S. DiBenedetto

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Dated: June 6, 2023

CERTIFICATE OF SERVICE

I, Emily S. DiBenedetto, hereby certify that on June 6, 2023, this document was served on Samsung-Netlist-COV@cov.com, qe-netlistvgoogle@quinnemanuel.com and on the persons listed below in the manner indicated:

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EXHIBIT 2

Redacted in its Entirety

EXHIBIT 3

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June 20, 2023

VIA E-MAIL

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Los Angeles, CA 90067

Re: *Samsung Electronics Co., Ltd. v. Netlist, Inc.*, No. 21-1453-RGA (D. Del.)

Counsel,

We write in response to your May 12 letter regarding Counter-Defendants Google and Alphabet's March 17, 2023 Objections and Responses to Netlist's First Set of Interrogatories (Nos. 1-10).

General Objections, p. 3 ¶2: Google's and Alphabet's objections to the definition of Accused Products were appropriate. In its Initial Infringement Contentions, Netlist identifies only memory modules manufactured and sold by Samsung as the Accused Instrumentalities, specifically Samsung DDR4 LRDIMMs, Samsung DDR4 RDIMMs, and Samsung DDR5 RDIMMs. Netlist's definition goes far beyond this. While your letter references "products that operate in a substantially similar manner," Netlist's infringement contentions do not suggest what this could be beyond the Samsung devices it has accused. Regardless, as is clear from Google's detailed responses, Google provided information in response to Netlist's interrogatories that goes far beyond what Netlist has actually accused. No further supplementation should be necessary.

General Objections, p. 3 ¶ 3: Google's and Alphabet's objections to the terms "Patent," "Third Party," "RDIMM," "LRDIMM," "Counter-Defendant Distributor," "Counter-Defendant Partner," "Counter-Defendant Supplier," "Standard(s)," "JEDEC," "JDLA," "Data Buffer," and "RCD," are and were appropriate. Indeed, these terms as drafted and defined by Netlist were vague, overbroad, and not proportional to the needs of the case. However, in responding to Netlist's interrogatories, Google and Alphabet did not withhold any identified information based on these objections.

quinn emanuel urquhart & sullivan, llp

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SAN FRANCISCO | SEATTLE | SHANGHAI | SILICON VALLEY | STUTTGART | SYDNEY | TOKYO | WASHINGTON, DC | ZURICH

General Objections, p. 4 ¶6: Netlist’s statement “[w]ithholding documents or information based on a confidentiality obligation is inappropriate,” is not consistent with the manner in which it has provided discovery responses itself. In any event, Google and Alphabet did not withhold any identified information based on these objections in their responses.

General Objections, p. 4 ¶7: Google’s and Alphabet’s objection to the extent Netlist seeks information in an unbounded timeframe is appropriate. If there is some specific timeframe that Netlist is looking for that it feels is not reflected in an interrogatory response, please identify it.

General Objections, p. 5 ¶4: Google’s and Alphabet’s objections based on the Court’s November 9 Scheduling Order are appropriate, and indeed Netlist has made similar objections as to discovery from Google and Samsung. Google and Alphabet believe their responses are appropriate based on the timeline of the case. If there are specific interrogatories for which Netlist has concerns, please identify them. As needed and appropriate, Google and Alphabet will supplement its interrogatories to account for Netlist’s Initial Infringement Contentions in due course.

Interrogatory No. 1: In its Initial Infringement Contentions, Netlist identifies only memory modules manufactured and sold by Samsung as the Accused Instrumentalities, specifically Samsung DDR4 LRDIMMs, Samsung DDR4 RDIMMs, and Samsung DDR5 RDIMMs. Netlist’s interrogatory seeks information far beyond this. While your letter references “products that operate in a substantially similar manner,” Netlist’s Initial Infringement Contentions do not suggest what this could be beyond the Samsung devices it has accused. Regardless, as is clear from Google’s detailed responses, Google provided information in response to Netlist’s interrogatories that goes far beyond what Netlist has actually accused. No further supplementation should be necessary.

Netlist’s stated concern regarding withholding documents or information based on a confidentiality obligation is not consistent with the manner in which it has provided discovery responsive itself. In any event, Google and Alphabet are not withholding any identified information based on these objections for this interrogatory.

In relation to “First Transaction Date,” Google noted: “For purposes of responding to this interrogatory, Google has provided the transaction date for the Accused Products, which corresponds to the approximate date upon which Google takes the products into inventory.” Furthermore, Google provided the “First Transaction Date” because it reflects the manner in which Google maintains the information in the normal course of its business.

As Google has informed Netlist, information concerning the components used in the memory modules Google purchases is in the possession of third-party suppliers. Netlist has also represented that it received this information from Samsung for the Accused Products, so we take it your complaint is moot. D.I. 108.

Interrogatory No. 2: It is not proportional to the case for Google and Alphabet to identify the “five most knowledge people” on a broad set of categories. Thus, Google’s and Alphabet’s objections and reference to the initial disclosures and documents is appropriate.

Interrogatory No. 3: In its Initial Infringement Contentions, Netlist identifies only memory modules manufactured and sold by Samsung as the Accused Instrumentalities, specifically Samsung DDR4 LRDIMMs, Samsung DDR4 RDIMMs, and Samsung DDR5 RDIMMs. Netlist’s interrogatory seeks information far beyond this. While your letter references “products that operate in a substantially similar manner,” Netlist’s infringement contentions do not suggest what this could be beyond the Samsung devices it has accused. [REDACTED] Regardless, as is clear from Google’s detailed responses, Google provided information in response to Netlist’s interrogatories that goes far beyond what Netlist has actually accused.

Google will investigate Netlist’s request for further information regarding the accused purchases identified in this interrogatory response and respond in due course and as appropriate according to the schedule in the case. Google and Alphabet note that Netlist has thus far refused to provide any substantive disclosure of its damages theory.

Interrogatory No. 4: Google will supplement its response to this interrogatory to reference Samsung’s declaratory judgment complaint.

Interrogatory No. 5: Google and Alphabet will supplement their response to this interrogatory in due course and as appropriate according to the schedule in the case. Google and Alphabet note that Netlist has thus far refused to provide any substantive disclosure of its damages theory.

Interrogatory No. 6: As you note, Google’s and Alphabet’s response appropriately indicates that “any alleged use of the Accused Products that occurs outside the United States would not be subject to infringement liability.” That is indisputably correct. Please explain the basis for the additional information sought in your letter at this time in the case and given Netlist’s disclosure (or lack thereof) of its infringement and damages theories as to Google and Alphabet to date.

Interrogatory No. 7: Google and Alphabet will supplement their response to this interrogatory in due course and as appropriate according to the schedule in the case. Google and Alphabet note that Netlist has thus far refused to provide any substantive disclosure of its damages theory.

Interrogatory No. 10: Google and Alphabet will supplement their response to account for Netlist’s Initial Infringement Contentions in due course.

Google will provide verifications in due course.

We are also in receipt of your June 9, 2023 letter. In this letter, you refer to a refusal “to provide any discovery into Alphabet’s business units that use the accused LRDIMMs separate from Google LLC’s search technology.” As an initial matter, Google’s and Alphabet’s responses that

they are responding to discovery as to Google and Alphabet respectively are proper. Further, you do not identify any specific discovery response that you contend is lacking. Please identify specific discovery responses that you believe are incomplete so we can evaluate your stated concern and request for a “timeline” of production.

As always, we remain willing to meet and confer to try to resolve any disputes.

Very truly yours,

QUINN EMANUEL URQUHART & SULLIVAN, LLP

/s/ David A. Perlson

David A. Perlson

EXHIBIT 4

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

| | | |
|-----------------------------------|---|--------------------------|
| SAMSUNG ELECTRONICS CO., LTD. AND |) | |
| SAMSUNG SEMICONDUCTOR, INC., |) | |
| |) | |
| Plaintiffs, |) | |
| |) | C.A. No. 21-1453-RGA-JLH |
| v. |) | |
| |) | |
| NETLIST, INC., |) | |
| |) | |
| Defendant. |) | |
| <hr/> NETLIST, INC., |) | |
| |) | |
| Counter-Plaintiff, |) | |
| |) | |
| v. |) | |
| |) | |
| SAMSUNG ELECTRONICS CO., LTD. AND |) | |
| SAMSUNG SEMICONDUCTOR, INC., |) | |
| |) | |
| Counter-Defendants. |) | |
| <hr/> NETLIST, INC., |) | |
| |) | |
| Counter-Plaintiff, |) | |
| |) | |
| v. |) | |
| |) | |
| GOOGLE LLC AND ALPHABET INC., |) | |
| |) | |
| Counter-Defendants. |) | |

**DEFENDANTS ALPHABET INC. AND GOOGLE LLC’S RESPONSES AND
OBJECTIONS TO PLAINTIFF NETLIST INC.’S FIRST SET OF INTERROGATORIES
(NOS. 1–10)**

Pursuant to Rules 26 and 33 of the Federal Rules of Civil Procedure, Defendants Google LLC (“Google”) and Alphabet Inc. (“Alphabet”) hereby object and respond to Plaintiff Netlist Inc.’s (“Netlist”) First Set of Interrogatories (Nos. 1–10). These objections and responses are made based on Google’s and Alphabet’s current understanding and the information reasonably available to Google and Alphabet at the present time. Google and Alphabet reserve the right to supplement

these responses if and when additional information becomes available. Google and Alphabet provide these responses without prejudice to their pending motion to dismiss, their position that neither entity is properly subject to this action, and any defenses asserted in this action.

GENERAL OBJECTIONS

Google and Alphabet make the following General Objections, whether or not separately set forth in response to each Interrogatory, to each and every instruction, definition, and question posed in the Interrogatories. By responding to any of the Interrogatories or failing to specifically refer to or specify any particular General Objection in response to a particular Interrogatory, Google does not waive any of these General Objections, or admit or concede the appropriateness of any purported interrogatory or any assumptions contained therein.

Google and Alphabet object to each Interrogatory, and to the Definitions and Instructions, to the extent that they purport to impose any obligations upon Google and Alphabet beyond the Federal Rules of Civil Procedure and the Local Rules of the United States District Court for the District of Delaware.

Google and Alphabet object to the definition of “Netlist” as overbroad, unduly burdensome, and vague, including to the extent that it includes predecessors, successors, assigns, subsidiaries, parent entities, domestic and foreign affiliates and related companies, divisions, departments, organizational operating units, and each entity owned or controlled by them, as well as all present or former officers, directors, executives, employees, principals, partners, agents, legal representatives, consultants, and other persons acting on their behalf. Google and Alphabet are not aware of the full scope of individuals or entities that would fall within this definition.

Google and Alphabet object to the definitions of “Google,” “Counter Defendants,” “You,” and “Your” on the grounds the definitions are overbroad, unduly burdensome, and vague,

including, but not limited to, the extent that they include any Google or Alphabet assigns, subsidiaries, parent entities, domestic and foreign affiliates and related companies, divisions, departments, organizational operating units, and each entity owned or controlled by them, directly or indirectly, in whole or in part, and all present or former officers, directors, executives, employees, principals, partners, agents, legal representatives, consultants, and other persons acting on their behalf. Google and Alphabet's responses herein are on behalf of Google LLC and Alphabet Inc.

Google and Alphabet object to the definition of "Accused Products" as overly broad, unduly burdensome, vague, and not relevant, including as to the terms and phrases "Double Data Rate 3 ("DDR3") RDIMMs," "DDR3 LRDIMMs," "Double Data Rate 4 ("DDR4") RDIMMs," "DDR4 LRDIMMs," "Double Data Rate 5 ("DDR5") RDIMMs," "DDR5 LRDIMMs," "ones that Counter Defendants' customers further customize," and "products that operate in a substantially similar manner."

Google and Alphabet object to the definitions of "Patent," "Third Party," "RDIMM," "LRDIMM," "Counter-Defendant Distributor," "Counter-Defendant Partner," "Counter-Defendant Supplier," "Standard(s)," "JEDEC," "JDLA," "Data Buffer," and "RCD" on the grounds that such definitions are overbroad, unduly burdensome, not proportional to the needs of the case, and vague.

Google and Alphabet object to each Interrogatory to the extent that it seeks information protected by the attorney-client privilege or the work product doctrine or that is otherwise privileged or protected from discovery.

Google and Alphabet object to each Interrogatory to the extent that it seeks information that is not relevant to a claim or defense of any party or to the subject matter of this action and is

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March 17, 2023

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CERTIFICATE OF SERVICE

I hereby certify that on March 17, 2023, true and correct copies of the foregoing document were caused to be served on the following counsel of record as indicated:

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EXHIBIT 5

**ORDER ON
PLAINTIFFS'
MOTION
FOR SANCTIONS
FOR DISCOVERY
MISCONDUCT**

**Redacted Version of
Document Sought to
be Sealed**

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

CHASOM BROWN, et al.,

Plaintiffs,

v.

GOOGLE LLC,

Defendant.

Case No. 20-cv-03664-YGR (SVK)

FILED UNDER SEAL

**ORDER ON PLAINTIFFS' MOTION
FOR SANCTIONS FOR DISCOVERY
MISCONDUCT**

Re: Dkt. No. 430

On February 26, 2022, Plaintiffs filed a request for an order for Google to show cause why it should not be sanctioned for discovery misconduct. Dkt. 430. At a February 28, 2022 hearing on other discovery issues, the Court indicated it would set a schedule for the motion, and on March 1, 2022, the Court issued a briefing and hearing schedule. Dkt. 443. On March 21, Plaintiffs moved for leave to file a supplement to the sanctions motion, which the Court granted. Dkt. 511, 512. In this Order, the Court refers to the sanctions motion, as supplemented on March 21, 2022, as the "Motion." Google subsequently filed an opposition to the Motion (Dkt. 528 ("Opp.")), and Plaintiffs filed a reply (Dkt. 536 ("Reply")). At the Court's direction, the Parties also filed competing proposed Findings of Fact and Conclusions of Law. Dkts. 549 ("Google Prop. Findings"), 552 ("Pls. Prop. Findings"). The Court held an in-person evidentiary hearing on April 21, 2022.

Following the hearing, Plaintiffs submitted a second request to supplement the Motion, which Google opposes. Dkt. 583, 585. This request is addressed in Section I below.

Having considered all of the papers and evidence before the Court, the Court **GRANTS IN PART AND DENIES IN PART** Plaintiffs' Motion for the reasons that follow.

I. Plaintiff's Second Request to Supplement Motion

On May 16, 2022, several weeks following the hearing on the Motion, Plaintiffs submitted a request to further supplement the Motion. Dkt. 583. Plaintiffs' latest request to supplement seeks to preclude Google from relying on two items: (1) Google's May 12, 2022 supplemental response to Interrogatory 35, which discusses the Incognito-detection bits; and (2) the April 25, 2022 Declaration of Richard Harting submitted by Google in connection with its objections to the Special Master's April 4, 2022 Report and Recommendation regarding a preservation plan. *Id.* Google opposes Plaintiffs' second request to supplement the Motion. Dkt. 585.

Having reviewed and considered Plaintiffs' second request to supplement the Motion, the Court **GRANTS** Plaintiffs' request to supplement the Motion as to Google's supplemental response to Interrogatory No. 35 and addresses that issue in its Findings of Fact and Conclusions of Law on the Motion. The Court **DENIES** Plaintiffs' request to supplement the Motion concerning Mr. Harting's declaration. That declaration was filed in connection with Google's objections to the Special Master's Report regarding a preservation plan and is more suitably considered in connection with that matter instead of the present Motion.

II. Evidentiary Issues**A. Google's Evidentiary Objections**

Google objects to two declarations of Mark C. Mao in support of Plaintiffs' motion. Specifically, Google objects to paragraphs 3–12, 15–23, 25, and 27–31 of the Declaration of Mark C. Mao in Support of Plaintiffs' Request for an Order to Show Cause (Dkt. 429-3) and Paragraphs 4–8, 10–11, 14–16, 19, 22–24, and 26–30 of the Second Declaration of Mark C. Mao in Support of Plaintiffs' Order to Show Cause Motion (Dkt. 494-3). Opp. at 4 n.2. Google argues that these declarations contain conclusions and argument in violation of Local Rule 7-5(b). Google's Proposed Findings ¶ 10 (citing as examples Dkt. 429-3 ¶ 10 ("Google went to great lengths to conceal this information throughout the discovery process."); *id.* ¶ 19 ("Tellingly, for certain other logs that apparently do not include a 'maybe_chrome_incognito' field, Google was happy to produce more than the 100 largest fields."); *id.* ¶ 31 ("Plaintiffs have asked Google to remedy the

prejudice it has caused in multiple, reasonable ways . . . Google has simply refused.”); Dkt. 494-3 ¶ 24 (“Google also produced schema for [REDACTED] logs containing the ‘maybe_chrome_incognito’ field . . . further demonstrating that Google has alternatives to produce schema with fields containing ‘incognito.’”).

Civil Local Rule 7-5(b) provides:

An affidavit or declaration may contain only facts, must conform as much as possible to the requirements of Fed. R. Civ. P. 56(e), and must avoid conclusions and argument. Any statement made upon information or belief must specify the basis therefor. An affidavit or declaration not in compliance with this rule may be stricken in whole or in part.

The Court finds that portions of the challenged Mao Declarations contain conclusions and arguments in violation of Civil Local Rule 7-5(b). The Court therefore **SUSTAINS** Google’s objections as to arguments and summaries contained in the objected-to paragraphs and strikes that language. Specifically, the Court **STRIKES** the following language from the original Mao Declaration (Dkt. 429-3):

- ¶ 3: “for the first time”
- ¶ 4: entire paragraph
- ¶ 5: “Contrary to Google’s assertions of burden with respect to producing Mr. Leung’s documents,”
- ¶ 6-10: entire paragraphs
- ¶ 11: “for the first time” and the sentence beginning “None of those documents . . .”
- ¶ 12: first two sentences and the phrase “the most up-to-date version” in the last sentence
- ¶ 15: entire paragraph
- ¶ 17: “(i.e., the only [REDACTED] logs Google disclosed that actually, and unbeknownst to Plaintiffs, contained the ‘maybe_chrome_incognito’ field)”
- ¶ 18: entire paragraph except the phrase “Google only produced filed names for the ‘100 largest fields’ in the [REDACTED] [REDACTED] logs”
- ¶ 19: “Tellingly,” “was happy to”

- ¶ 20: entire paragraph
- ¶ 21: “very”
- ¶ 22: the phrase “and simply had no reason to believe” and the sentence beginning “To the contrary ...”
- ¶ 23: entire paragraph except for the statement “Google produced Mr. Leung’s custodial documents on Friday, February 18, 2022”
- ¶ 27: last sentence
- ¶ 28: last two sentences
- ¶ 30: “Google’s evasion was improper”

Google’s objections to the Second Mao Declaration are directed at Dkt. 494-3. Opp. at 4 n.2. However, that document was previously stricken without prejudice. Dkt. 508. The Second Mao Declaration was re-filed as Dkt. 510-3. In light of Google’s objections, the Court also **STRIKES** the following language from the Second Mao Declaration (Dkt. 510-3):

- ¶ 6: entire paragraph except first and last sentence
- ¶ 7: first sentence
- ¶¶ 14-15: entire paragraphs
- ¶ 22: entire paragraph except first sentence
- ¶ 23: “for the first time” (in both sentences)
- ¶ 24: “further demonstrating that Google has alternatives to produce schema with fields containing ‘incognito’”
- ¶¶ 26-27: entire paragraphs

Except as specified above, the Court **OVERRULES** Google’s objections to the Mao declarations, and **OVERRULES** Google’s objections to the extent Google objects to the evidence attached to and authenticated by the Mao declarations.

B. Hearing Exhibits

At the April 21, 2022 hearing on the Motion, the Court ordered the Parties to meet and confer regarding Google’s request to admit certain deposition and hearing transcripts as exhibits

for purposes of the hearing. Dkt. 568 (4/21/22 Hearing Tr.) at 216-18. Following the hearing, the Parties submitted a stipulation in which they agreed to admit an excerpt of the February 16, 2022 Special Master Hearing Transcript as Google's Exhibit C. Dkt. 563. The Parties also agreed to admit an excerpt of the March 23, 2022 Special Master Hearing Transcript as Google's Exhibit D. *Id.* Accordingly, Dkt. 563-1 is **ADMITTED** as Google's Hearing Exhibit C, and Dkt. 563-2 is **ADMITTED** as Google's Hearing Exhibit D.

The Parties were unable to reach agreement on admission of pages 374-376 and 385-387 of the transcript of the June 16, 2021 Rule 30(b)(6) deposition of Glenn Berntson. Dkt. 563. Google seeks admission of these transcript excerpts on the basis that Google's cited portions of Berntson transcript in argument slides used at the hearing. *See* Dkt. 568 (4/21/22 Hearing Tr.) at 216-217. Plaintiffs object hearsay grounds. Dkt. 568 (4/21/22 Hearing Tr.) at 216. Plaintiffs' objection is **OVERRULED** as to the specific excerpts of the Berntson transcript cited in Google's argument slides (pages 375:5-6, 8-9, and 21-24 and 386:13-24), and those excerpts are **ADMITTED** as Google's Hearing Exhibit E. The Court allowed into the record any documents or testimony cited in briefs or used with a witness. These excerpts were cited in argument, and the Court extends its ruling to include them. Google's request to admit other portions of the Bernston transcript is **DENIED**.

III. FINDINGS OF FACT OF FACT AND CONCLUSIONS OF LAW

The Court's Findings of Fact and Conclusion of Law on the Motion are attached to this Order as Exhibit A.

IV. PLAINTIFFS' OCTOBER 14, 2021 MOTION SEEKING RELIEF FOR GOOGLE'S FAILURE TO OBEY DISCOVERY ORDER

On October 14, 2021, Plaintiffs filed a motion requesting that the Court issue an evidentiary sanction against Google, arguing that Google had violated the Court's April 30, 2021 Discovery Order that Google provide information concerning the named Plaintiffs and their devices. Dkt. 292. The Court stayed briefing on the earlier motion for relief pending resolution of related issues referred to the Special Master. Dkt. 297. In the present Motion, Plaintiffs ask the

1 Court to “reinstate” the earlier motion for relief. Motion at 3.

2 Plaintiffs’ October motion was premature, as it preceded the findings of the Special
3 Master’s Report regarding the identification and production of data on October 20, 2021. Dkt.
4 299. The Court adopted a modified version of the Special Master’s Report on November 12,
5 2021. Dkt. 330. To the extent any issues from the earlier motion at Dkt. 292 remained following
6 the November 12 Order, they were re-argued in the present motion and are addressed in this
7 Order. Accordingly, the earlier motion for relief at Dkt. 292 is **TERMINATED AS MOOT**.
8

9 V. ADMINISTRATIVE MOTIONS TO SEAL

10 The Parties filed a number of motions to seal in connection with their submissions on the
11 present Motion. Dkt. 429, 510, 527, 529, 535, 548, 551, 582 (motions to seal); *see also* Dkt. 514,
12 520, 550, 557 (declarations filed in support of motions to seal). Many of the materials sought to
13 be sealed were discussed in open court on the hearing on the Motion, by agreement of and without
14 objection by the Parties. Accordingly, the administrative motions to seal at Dkt. 429, 510, 527,
15 529, 535, 548, 551 are **DENIED WITHOUT PREJUDICE**. Any party may file a renewed
16 motion to seal the materials associated with the Motion, with requests to seal narrowly tailored to
17 material not already in the public record, no later than **May 31, 2022**. As to any material that is
18 not the subject of a renewed motion to seal filed by the May 31, 2022 deadline, the Court will
19 order that the material be filed in the public record. *See* Civ. L.R. 79-5(f)(3).
20

21 VI. CONCLUSION

22 For the reasons discussed in Exhibit A, the Court **ORDERS** that the following sanctions be
23 imposed against Google:

- 24 1. Google must provide Plaintiffs with a representation in writing no later than **May 31, 2022**
25 that other than the logs identified thus far as containing Incognito-detection bits, no other
26 such logs exist.
27
28

2. Google may not object to or present argument against the timing of the development and implementation of the three Incognito-detection bits at issue or the fact that such bits were implemented. Google is not excluded from arguing against the reliability of the three Incognito-detection bits in identifying class members.
3. Google may not offer or rely on testimony from Chris Liao, Bert Leung, Mandy Liu, or Quentin Fiard for any purpose.
4. Google is precluded from offering or relying on its Supplemental Response to Interrogatory No. 35.
5. If in the course of proceedings before the trial judge it is determined that Google's discovery misconduct is relevant to an issue before the jury, the Court finds the following jury instructions appropriate: (1) "Google failed to disclose to Plaintiffs the names of key Google employees responsible for developing and implementing Google's Incognito-detection bits"; and (2) "Google failed to disclose relevant data sources reflecting the use of the Incognito-detection bits."
6. Google must pay all attorneys' fees and costs incurred by Plaintiffs in filing the Sanctions Motion, including expert consultant and witness fees. Within **14 days of the date this Order**, Plaintiffs must submit to the Court their request for reimbursement.

SO ORDERED.

Dated: May 20, 2022



SUSAN VAN KEULEN
United States Magistrate Judge

| | | | |
|----|--|--|----|
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| 3 | United States District Court for the Northern District of California | | |
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FINDINGS OF FACT

I. Background

A. Plaintiffs’ Allegations

1. Plaintiffs filed this lawsuit on June 2, 2020. Dkt 1.

2. On September 21, 2020, Plaintiffs filed their First Amended Complaint (“FAC”). Dkt. 68. Plaintiffs’ FAC challenged Google’s “surreptitious interception and collection of personal and sensitive user data while users are in a ‘private browsing mode,’” including Google’s Chrome “Incognito” mode. FAC ¶¶ 1, 51-57, 63-66.

3. In their FAC, Plaintiffs alleged that Google sets a unique identifier, called an “X-Client-Data Header,” for each device on which Chrome is installed. *Id.* ¶ 95. Plaintiffs further alleged that Google transmits this unique digital string to its servers in all Chrome states *except* Chrome’s Incognito mode, allowing Google to use the absence of the X-Client-Data Header to determine whether a user is in Incognito mode. *Id.* ¶ 96.

4. In addition to challenging Google’s interception and collection of data from users visiting non-Google websites in “private browsing mode,” Plaintiffs also alleged that Google used such data “to improve Google’s own algorithms and technology, such as Google Search.” *Id.* ¶ 115. For instance, Plaintiffs alleged:

Google market power in Search is entirely dependent on its ability to track what consumers are doing. The trackers that Google has across the internet not only tell Google where consumers go subsequent to searching on Google Search, the trackers allow Google to track what websites are popular and how often they are visited. By compiling not just consumer profiles, but surveying human behavior across the vast majority of web browser activity, Google is able to create a better and more effective search product as compared to its competitors, by its ability to claim that Google knows how to best rank websites and online properties, because Google can track consumers’ activity better than anyone else. Google Search would not be nearly as effective as a search tool without Google Analytics as a complement.

Id. ¶ 121.

5. Plaintiffs’ FAC alleged claims for (1) federal wiretap violations, 18 U.S.C. §§ 2510, *et seq.*; (2) invasion of privacy act violations, Cal. Pen. Code §§ 631 & 632; (3) violations of the Comprehensive Computer Data Access and Fraud Act (“CDAFA”), Cal. Pen. Code §§ 502, *et seq.*; (4) invasion of privacy; and (5) intrusion upon seclusion. *See id.* ¶¶ 202-66.

6. Plaintiffs asserted these claims on their own behalf, and on behalf of the following classes:

Class 1 – All Android device owners who accessed a website containing Google Analytics or Ad Manager using such a device and who were (a) in “private browsing mode” on that device’s browser and (b) were not logged into their Google account on that device’s browser, but whose communications, including identifying information and online browsing history, Google nevertheless intercepted, received, or collected from June 1, 2016 through the present (the “Class Period”);

Class 2 – All individuals with a Google account who accessed a website containing Google Analytics or Ad Manager using any non-Android device and who were (a) in “private browsing mode” in that device’s browser, and (b) were not logged into their Google account on that device’s browser, but whose communications, including identifying information and online browsing history, Google nevertheless intercepted, received, or collected from June 1, 2016 through the present (the “Class Period”).

Id. ¶ 192.

7. Plaintiffs alleged that “individual members [of the classes] will be identifiable from Google’s records, including from Google’s massive data storage, customer accounts, and enterprise services.” *Id.* ¶ 194.

8. On March 12, 2021, the Court issued an order denying Google’s motion to dismiss the FAC. Dkt. 113. In doing so, the Court noted Plaintiffs’ allegation regarding identification of Incognito users:

[P]laintiffs allege that, for users using Chrome without Incognito Mode, Chrome constantly transmits “a unique digital string of characters called Google’s ‘X-Client-Data Header,’ such that Google uniquely identifies a device thereafter.” However, Plaintiffs allege that the X-Client Data Header is not present when a Chrome user has enabled Incognito Mode. Accordingly, Plaintiffs allege that Google is able to tell when a Chrome user has enabled Incognito Mode.

Id. at 4.

9. Plaintiffs subsequently amended their Complaint in April 2021 to add causes of action for (1) breach of contract and (2) violations of California’s Unfair Competition Law (“UCL”). Dkt. 136-1 (Second Amended Complaint (“SAC”)). The Court subsequently denied Google’s motion to dismiss Plaintiffs’ SAC. Dkt. 363.

10. On February 3, 2022, Plaintiffs moved for leave to file their Third Amended Complaint (“TAC”), which amended their class definitions to include Google’s collection of

private browsing information by way of all “Google tracking or advertising code.” Dkt. 395, 395-

2. The TAC defines the classes as follows:

Class 1 – All Chrome browser users with a Google account who accessed a non-Google website containing Google tracking or advertising code using such a browser and who were (a) in “Incognito mode” on that browser and (b) were not logged into their Google account on that browser, but whose communications, including identifying information and online browsing history, Google nevertheless intercepted, received, or collected from June 1, 2016 through the present (the “Class Period”).

Class 2 – All non-Chrome browser users with a Google account who accessed a non-Google website containing Google tracking or advertising code using any such browser and who were (a) in “private browsing mode” on that browser, and (b) were not logged into their Google account on that browser, but whose communications, including identifying information and online browsing history, Google nevertheless intercepted, received, or collected from June 1, 2016 through the present (the “Class Period”).

Dkt. 395-2 ¶ 192.

11. The Court granted Plaintiffs’ motion on March 18, 2022. Dkt. 504. The Court’s order granted Plaintiffs’ motion for leave to file the TAC on the following condition:

[G]iven plaintiffs’ representations that amendment would not impact discovery in this case, plaintiffs may not rely on their newly revised class definitions to:

- Seek additional or supplemental 30(b)(6) testimony;
- Seek additional or supplemental document productions;
- Request that Google supplement any of its discovery responses; or
- Seek to extend any case deadlines.

Id.

12. After several extensions, fact discovery closed on March 4, 2022.

B. Google’s Incognito-Detection Bits

13. The present Motion relates to three fields used in certain Google logs: “is_chrome_incognito”; “is_chrome_non_incognito”; and “maybe_chrome_incognito.” In this Order, the Court refers to these three fields as the “Incognito-detection bits.”

14. These three fields are called “bits” because they are Boolean fields, which means that each contains only a value indicating “true” or “false.” Dkt. 527-10 (“Liao Decl.”) ¶ 10; Dkt.

1 527-12 (“Leung Decl.”) ¶ 9. For each bit, the true or false value corresponds to whether a Chrome
2 browser has sent Google a signal called the “X-Client-Data header.” Leung Decl. ¶¶ 8–9.

3 1. “is_chrome_incognito” and “is_chrome_non_incognito” fields

4 15. In 2017, Google began logging the “is_chrome_incognito” field in at least two
5 Google logs: (1) [REDACTED] and (2) [REDACTED]. Dkt. 510-7
6 (Sadowski Reference Sheet).

7 16. In 2017, Google also began logging the “is_chrome_non_incognito” field in at least
8 three Google logs: (1) [REDACTED]; (2) [REDACTED]
9 [REDACTED]; and (3) [REDACTED]. *Id.*

10 17. According to Google’s 30(b)(6) witness deposed on March 10, 2022, Google
11 created these two Google Incognito-detection bits to “look[] specifically at whether there is an
12 X-Client . . . Data header in the request that is sent.” Dkt. 510-9 (Sadowski Tr.) at 76:7-9.

13 18. According to this same 30(b)(6) witness, Google sets “is_chrome_non_incognito”
14 to “true” when the X-Client Data header is present. *Id.* 76:12-16.

15 19. Similarly, Google sets the “is_chrome_incognito” field to “true” when (1) the
16 X-Client Data header is absent and (2) the “user agent” is consistent with a Chrome browser. *Id.*
17 77:20-78:21.

18 20. On April 1, 2022, Google provided Plaintiffs with the following “proto comment”¹
19 for Google’s “is_chrome_incognito” bit: [REDACTED]
20 [REDACTED] Dkt. 535-5 (Apr. 1, 2022 Letter from Google Counsel to Special
21 Master Brush); Hearing Ex. 15.

22 21. According to Google’s 30(b)(6) witness, a Google employee named Quentin Fiard
23 authored a design document Google produced concerning the “is_chrome_non_incognito” field
24 and was involved in implementing the field. Dkt. 510-9 (Sadowski Tr.) at 65:3-7, 92:5-6; Dkt. 568
25 (4/21/22 Hearing Tr.) at 211:11-20.

26
27 _____
28 ¹ A “proto comment” is similar to a “remark” used in programming tools.

2. “maybe_chrome_incognito” field

22. In 2019, Google employee Chris Liao and others (as part of project “██████████”) began evaluating the economic impact to Google to block third-party cookies by default in Chrome’s Incognito mode. Dkt. 429-31 (GOOG-CABR-04324934).

23. In May 2020, as Google was implementing ██████████, Google employees Chris Liao, Bert Leung, and Mandy Liu began working on a project that culminated in Google using another Incognito-detection bit, ultimately re-named “maybe_chrome_incognito.” Dkt. 535-15 (Draft Stipulation Regarding Google’s Maybe_Chrome_Incognito Field);² Dkt. 527-12 (Leung Decl.) ¶ 9.

24. Internal Google documents show that Google developed and implemented this Incognito-detection field from 2020 to the present to quantify the ongoing financial impact of blocking third-party cookies by default in Incognito. Dkt. 429-9 (GOOG-BRWN-00845423) at -2 (explaining that the plan to develop maybe_chrome_incognito had been “approved” and noting that one purpose was “[t]o better keep up with the status quo of the latest 3p-cookie-blocking browsers as well as quantify the impact of the incoming ones”); Hearing Ex. 19 (GOOG-BRWN-00845526) (Mandy Liu responds to question “Why do you want this?”—addressing plan to “[l]og Maybe Chrome Incognito Bit”—by explaining that “[w]ith the efforts made in [██████████] a long term solution is in need to provide a standard way to detect and monitor Incognito as well as all the other 3p-cookie-blocking browsers, hence we have this bit and this design doc”).

25. On June 9, 2020, Mr. Leung submitted a proposal for a project to “detect [third-party] cookie blocking browsers . . . in ad serving, and log this information for monitoring and analysis.” Dkt. 429-5 (GOOG-BRWN-00845639) at -40. This proposal identified Chrome’s Incognito mode as one of the third-party cookie blocking browsers the proposed project aimed to detect. *Id.* With his proposal, Mr. Leung noted the “[p]otential privacy risk of logging inferred Chrome Incognito detection” and sought “feedback from privacy gurus.” *Id.*

² According to the Mao Reply Decl. (Dkt. 535-3) ¶ 16, Google proposed this draft stipulation in response to the Court’s order requiring Google to provide additional information about the maybe_chrome_incognito bit either by stipulation or further deposition. *See* Dkt. 505-1 at 1.

1 26. Mr. Leung worked with Google engineer Mandy Liu to refine Google’s process for
2 detecting and logging Incognito traffic with the “maybe_chrome_incognito” field. *See, e.g.*,
3 Dkt. 429-7 (GOOG-BRWN-00845596); Dkt. 429-47 (GOOG-BRWN-00845281); Dkt. 429-49
4 (GOOG-BRWN-00845275); Dkt. 429-51 GOOG-BRWN-00845275).

5 27. The “Chrome Incognito proxy signal” Mr. Leung was working on was also based
6 on the absence of the “Chrome/Google specific X-Client-Data header.” Dkt. 429-25 (GOOG-
7 BRWN-00845277) at -77.

8 28. Mr. Liao—who supervised both Mr. Leung and Ms. Liu—was involved in these
9 efforts. Dkt. 510-11 (Liu Tr.) at 16:2-13, 21:17-25; Dkt. 527-10 (Liao Decl.) ¶ 10.

10 29. On March 5, 2021, Google’s design document was updated to reflect the plan to
11 log the field in a set of logs called “██████ logs.” Dkt. 429-45 (GOOG-CABR-05757329) at -31.

12 30. On or around March 11, 2021, Google employees drafted a logging proto to
13 implement the field called “maybe_chrome_incognito_do_not_use_
14 without_consulting_ads_identity_team.” Dkt. 535-15 (Draft Stipulation Regarding Google’s
15 Maybe_Chrome_Incognito Field). The field was a Boolean field, meaning it would have one of
16 only two possible values, represented by either a 1 (for “yes”) or a 0 (for “no”) in any log field.
17 Dkt. 535-17 (Thompson Decl.) ¶ 20; *see also* Dkt. 527-10 (Liao Decl.) ¶ 10; Dkt. 527-12 (Leung
18 Decl.) ¶ 9.

19 31. On June 17, 2021, Google began logging data with the above
20 “maybe_chrome_incognito” field in ██████████ logs. Dkt. 535-15 (Draft Stipulation Regarding
21 Google’s Maybe_Chrome_Incognito Field).

22 32. On July 4, 2021, Google began logging data with the above
23 “maybe_chrome_incognito” field in ████████ additional ████████ logs, resulting in ██████ logs sources
24 that contain the maybe_chrome_incognito bit. *Id.*

25 33. Google implemented the “maybe_chrome_incognito” Boolean field into the data
26 sources and logs listed below:

| Google logs containing maybe_chrome_incognito field | Date Google began logging field |
|--|---------------------------------|
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] [REDACTED] [REDACTED] | [REDACTED] |
| [REDACTED] | [REDACTED] |

27 | *Id.*

C. Previous Litigation of X-Client-Data Header Issue in This Case

34. The question of whether or not the absence of the X-Client-Data header can be used as a detection tool for users in Chrome's Incognito mode, which is central to Plaintiffs' claims that the three bits at issue are relevant to their case, became an issue early on in this litigation.

35. In July 2021, Plaintiffs sought to compel a production of all data for which the X-Client-Data header was absent. *See* Dkt. 176-4 at 29–30.

36. In doing so, Plaintiffs argued that “[d]iscovery to date confirms the ‘X-Client-Data Header’ can be used to identify class members.” *Id.* Google responded that the X-Client-Data Header is an unreliable tool for Incognito detection. *Id.*

37. In response, the Court requested supplemental briefing from the parties on the following question: “What is Plaintiffs’ factual basis to dispute Google's position that there are multiple reasons why the X-Client Data field may be empty and therefore the empty field does not necessarily identify class members?” Dkt. 191-1 at 5.

38. In supplemental briefing, Plaintiffs cited documents Google had produced that showed that in some instances Google used the absence of the X-Client-Data header to infer the use of Chrome Incognito. Dkt. 217-4 at 4–5.

39. Specifically, Plaintiffs pointed to a Google dashboard “with a query tool for checking on X-Client Data experiments,” a “Google[] document titled ‘How to Detect Chrome Incognito Mode’,” an “‘incognito dashboard’ to track Incognito browsing and also one or more dashboards . . . tracking the X-Client Data header experiments, including ‘tracking incognito usage’,” “[o]ther Google-produced documents indicat[ing] that Google collects and reports ‘Incognito Usage Statistics’,” and a document they claimed demonstrates that “Google ‘always’ records Incognito.” *Id.* at 4.

40. Google responded that although it may have used the absence of the X-Client-Data header for certain limited purposes, that logic is an unreliable means of identifying Incognito usage with precision because there are many scenarios in which the X-Client-Data header is absent for reasons other than Incognito browsing. *Id.* at 8–11 (citing to Rule 30(b)(6) testimony).

1 41. Following this briefing, the Court referred the issue, which was designated
2 discovery dispute P16, to the Special Master. Dkt. 221.

3 42. In October 2021, following further submissions by the parties on the technical
4 aspects of the dispute, the Special Master denied Plaintiffs' request for a production of all Chrome
5 browser communications in which the X-Client-Data header was absent. Dkt. 299-1 at 2.

6 43. This Court adopted the Special Master's findings on November 12, 2021. *See* Dkt.
7 331.

8 44. Plaintiffs have not demonstrated that the Court or the Special Master erred when
9 they previously ruled that the absence of the X-Client-Data header is not, by itself, sufficiently
10 reliable to warrant Plaintiffs' broad request for discovery.

11 **II. Google's Discovery Deficiencies**

12 **A. Google Failed to Timely Disclose Relevant Witnesses**

13 45. On September 30, 2020, Plaintiffs served their first set of Requests for Production
14 ("RFP") Nos. 1-19 on Google. *See* Dkt. 429-29.

15 46. Plaintiffs' RFP No. 11 sought: "Documents sufficient to identify Google's current
16 and former officers, directors, managers, employees and consultants with knowledge of the alleged
17 Google conduct." *Id.* at 14.

18 47. Plaintiffs' RFP No. 12 sought: "Documents sufficient to show the roles and
19 responsibilities of and supervisory relationship between Google's current and former officers,
20 directors, managers, employees and consultants with knowledge of the alleged conduct." *Id.* at 15.

21 48. On October 30, 2020, in response to RFP No. 11, Google agreed to produce
22 "responsive documents sufficient to identify current Google personnel with responsibility for the
23 relevant conduct relating to Google Chrome, Google Analytics, and Google Ad Manager...." *Id.*

24 49. On October 30, 2020, in response to RFP No. 12, Google agreed to produce
25 "responsive documents sufficient to show the roles of current Google personnel with responsibility
26 for the relevant conduct relating to Google Chrome, Google Analytics, and Google Ad Manager,
27
28

1 to the extent that such documents exist, are within Google’s possession, custody, or control, and
2 can be located following a reasonable search.” *Id.* at 16.

3 50. On December 2, 2020, Google placed Chris Liao on a litigation hold for this matter.
4 Dkt. 527-10 (Liao Decl.) ¶ 2.

5 51. On December 15, 2020, Google placed Bert Leung on a litigation hold for this
6 matter. Dkt. 527-12 (Leung Decl.) ¶ 2.

7 52. Google has not provided information indicating that Mandy Liu or Quentin Fiard
8 were put on litigation holds for this matter.

9 53. On February 4, 2021, Google produced a list of over 200 employees in response to
10 Plaintiffs’ RFP Nos. 11 and 12. Dkt. 429-11 (GOOG-BRWN-00023909).

11 54. The list Google produced did not disclose Chris Liao, Bert Leung, Mandy Liu, or
12 Quentin Fiard.

13 55. On February 26, 2021, Plaintiffs served their second set of interrogatories on
14 Google, including Interrogatory No. 4: “For the period since June 1, 2008, identify Google’s
15 current and former officers, directors, managers, employees, and consultants with responsibility
16 for or knowledge of”: (1) “Google’s Incognito mode ...”; (2) “Google’s collection of and use of
17 data in connection with users’ activity while in a private browsing mode . . . and any Google
18 products or services that collect and use such data ...”; and (3) “Google’s creation and use of
19 profiles or other aggregated data with data collected in connection with users’ activity while in a
20 private browsing mode ...” Dkt. 429-13.

21 56. On March 29, 2021, Google served its response to Plaintiffs’ Interrogatory No. 4.
22 Google’s response cross-referenced the list it produced on February 4, 2020 and named several
23 additional persons, but it did not identify Chris Liao, Bert Leung, Mandy Liu, or Quentin Fiard.
24 Dkt. 429-15.

25 57. On June 2, 2021, the Court held a joint hearing on discovery disputes in this matter
26 and the *Calhoun* action, during which the Court stated, “I don’t see why the names can’t be shared”
27
28

1 when asked about whether Plaintiffs in the *Brown* and *Calhoun* matters could “exchange our
2 current ESI custodian list with each other” Dkt. 194-4 (6/2/21 Hearing Tr.) at 67:5-11.

3 58. Google subsequently agreed to add Chris Liao as an ESI custodian. *See* Dkt. 202 at
4 2.

5 59. The Court ordered that final disputes concerning ESI custodians be submitted to
6 the Court no later than August 24, 2021. Dkts. 242-1.

7 60. Bert Leung, Mandy Liu, and Quentin Fiard—whom Google had not disclosed to
8 Plaintiffs—were not selected as ESI custodians. Dkt. 257-4.

9 61. In February 2021, Google opposed Plaintiffs’ requests for limited ESI Searches and
10 depositions of Mr. Leung and Ms. Liu, arguing that Plaintiffs should have identified the witnesses
11 earlier and that their supervisor, Chris Liao, had already produced documents and been deposed.
12 Following submissions from the Parties, the Court granted Plaintiffs’ requests. *See* Dkt. 398-1,
13 401, 406, 423-1, and 437-1.

14 **B. Google Failed to Disclose the Existence of Incognito-Detection Bits**

15 62. At the same time that Plaintiffs sought to identify relevant custodians, Plaintiffs
16 addressed preservation and production of data.

17 63. In a Case Management Statement filed with the Court on September 2, 2020,
18 Google indicated that it intended to put at issue Plaintiffs’ ability to identify Incognito traffic from
19 its logs stating: “[I]t is unclear how Plaintiffs could ascertain the members of the proposed
20 class....” Dkt. 59 at 8.

21 64. On September 30, 2020, Plaintiffs served RFP No. 10 seeking: “Documents
22 sufficient to identify all alleged class members, including all electronic or physical address
23 information associated with alleged class members.” *See* Dkt. 429-29 at 13. Google refused to
24 produce any documents, including on the grounds that the “identity of ‘alleged class members’ ...
25 is not ascertainable.” *Id.*

26 65. On September 30, 2020, Plaintiffs also served RFP No. 18 seeking: “Documents
27 concerning Plaintiffs, including Plaintiffs’ use of Google services, all data collected by Google
28

1 from and regarding Plaintiffs, and Google’s use of all data collected by Google from and regarding
2 Plaintiffs.” *Id.* at 20. Google objected to producing documents responsive to RFP No. 18, only
3 agreeing to “collect data associated with Plaintiffs’ Google Accounts and Google Account IDs.”
4 *Id.* at 21.

5 66. On January 13, 2021, Google sent Plaintiffs a letter stating:

6 **Private Browsing Mode Data.** Plaintiffs asked Google about the retention period for the
7 event-level user data that is collected while users are in private browsing mode. *As we*
8 *explained on the call, there are no logs or other documents that separately identify data*
9 *collected through Ad Manager or Analytics from users in private browsing mode.* We
10 have further explained, in briefing and in our responses to Plaintiffs’ discovery requests,
11 that Ad Manager and Analytics do not distinguish between users who are in a private
12 browsing mode and users who are not in a private browsing mode. Therefore, Plaintiffs’
13 request that Google preserve any log that may reflect data from users in private browsing
14 mode is essentially asking for the preservation of *any and all* logs reflecting event-level
15 user data received through Ad Manager and Analytics.

16 Hearing Ex. 46 (Jan. 13, 2021 Letter from Google’s counsel) at 2 (emphasis added).

17 67. In this letter Google fails to acknowledge that Google had been logging the
18 “is_chrome_incognito” and “is_chrome_non_incognito” fields since 2017.

19 68. On February 5, 2021, Google responded to a January 19, 2021 letter from Plaintiffs
20 requesting that Google suspend the regular retention policies of all logs that may record any data
21 from users’ private browsing in the United States. Google’s letter failed to disclose that Google
22 had been attempting to “distinguish between users who are ‘Incognito’ from ‘non-Incognito’”
23 using the “is_chrome_incognito” and “is_chrome_non_incognito” fields since 2017. Instead,
24 Google’s February 5, 2021 letter stated:

25 Plaintiffs now ask Google to suspend the regular retention policies of all logs that
26 may record any data from users’ private browsing in the United States. Plaintiffs claim that
27 ‘it appears necessary to preserve all logs’ of logged-in and logged-out users that may
28 contain data generated during private browsing sessions ‘so that Plaintiffs can evaluate
those logs and other data to assess the best way to identify private browsing mode users
and the data collected from their private browsing.’ Letter at 5. Google disagrees.
Plaintiffs’ request is grossly disproportionate to the needs of the case.

* * *

26 ***The log data is not reasonably limited by geographic region, by browser, or by***
27 ***browser mode.*** For that reason, Plaintiffs’ preservation request sweeps in a plethora of data
28 for millions of individuals who are not putative class members....

* * *

1 [T]he sheer size of these logs makes Plaintiffs' demand unworkable. These logs
2 cover [REDACTED]
3 many of whom are not putative class members. Google estimates that suspending
4 preservation of these logs—even if possible—would result in an additional [REDACTED]

5 Hearing Ex. 48 (Feb. 5, 2021 Letter from Google's counsel) at 1- 2 (emphasis added).

6 69. Google's representations about the data it was logging were incomplete and
7 therefore misleading. Google's Incognito-detection bits were clearly relevant to these preservation
8 discussions and should have been disclosed.

9 70. On March 23, 2021, Plaintiffs and Google filed a joint letter brief concerning the
10 suspension of the routine deletion period for any logs. Dkt. 118-4.

11 71. In that brief, Google argued that the "Disputed Logs record [REDACTED]
12 [REDACTED]
13 [REDACTED] *Id.* at 4.

14 72. In connection with that briefing, Google failed to disclose that (1) it had been using
15 the "is_chrome_incognito" and "is_chrome_non_incognito" fields in Google logs since 2017; and
16 (2) Google engineers had received approval to log another field called "maybe_chrome_incognito"
17 to identify Incognito traffic.

18 73. On April 23, 2021, the parties submitted a joint letter brief on various discovery
19 disputes, including Google's position that it could not produce documents in response to RFP No.
20 10 "because it does not maintain or associate 'electronic or physical address information' with the
21 private browsing activity of users who are *not* logged into their Google Accounts" and does not
22 "maintain any other system or process for identifying logged-out users while in private browsing
23 mode." Dkt. 139-4 at 5 (emphasis in original).

24 74. Without disclosing the existence and Google's use of these Incognito-detection bits
25 to the Court, Google represented in that brief: "Plaintiffs' request for Google to produce 'browsing
26 data where the X-Client-Data header is and is not present' is unworkable" and that "the absence
27
28

1 of the header *cannot* be used to ascertain purported class members as it would improperly include
2 all users browsing on a non-Chrome browser . . .” *Id.* (emphasis in original).

3 75. In connection with that briefing, Google did not at any time disclose that since at
4 least 2017, it had been flagging potential Incognito traffic with the “is_chrome_incognito” bit
5 using two criteria: (1) the absence of the X-Client-Data header and (2) a user agent string consistent
6 with the Chrome browser that excluded users browsing on non-Chrome browsers that would
7 otherwise not send an X-Client-Data header. Dkt. 510-9 (Sadowski Tr.) at 77:20-78:2.

8 76. On April 29, 2021, the Court held a joint discovery hearing in the *Brown* and
9 *Calhoun* matters. The Court ruled during the *Calhoun* portion of the hearing that, “based on the
10 facts before the Court, Google need not suspend its standard retention periods applicable to data
11 logs that reflect event-level data of Chrome users in the United States” and that “[t]his order is
12 without prejudice to challenge based upon new evidence not currently before the Court.” *Calhoun*
13 Dkt. 200-4 (4/29/21 *Calhoun* Hearing Tr.) at 21. The Court adopted that *Calhoun* order in this case
14 by reference. Dkt. 147-1.

15 77. During the *Brown* portion of the hearing, the Court asked Google whether the Court
16 correctly understood Google’s arguments against producing data in response to RFP No. 10:

17 Okay. So we can start with the as – and I appreciate Google’s argument, which I
18 looked at carefully as set forth in the additional page of briefing, as to – you know, just to
19 sum it up, that these don’t – that these don’t link up, just to not give full credit, but that’s –
20 that’s how I – that’s my take away from the argument.

21 And that when you’re looking at these various components like the X-Client Data
22 field in a header log, just because that’s empty doesn’t mean that they were in incognito
23 mode because sometimes that information is transferred and sometimes it’s not.

24 I also understand that – the argument that with regards to the special cookies or
25 identifiers for – that Google uses when someone is browsing, but not logged in to their
26 account, that when that browsing session comes to an end, Google says, well, that – then
27 those cookies disappear.

28 So my first question is – I appreciate the statements. Has that – is that Google’s
position? Is there any evidence that supports those conclusions yet in the record, either
through deposition or responses?

Brown Dkt. 170-4 (4/29/21 *Brown* Hearing Tr.) at 15-16.

1 78. In response to the Court's question, Google did not disclose that it had been
2 flagging potential Incognito traffic with an "is_chrome_incognito" bit based on (1) the absence of
3 the X-Client Data Header and (2) a user-agent string indicating a Chrome browser since at least
4 2017. *Id.*

5 79. Addressing Plaintiffs' RFP No. 10 seeking "[d]ocuments sufficient to identify all
6 alleged class members," and Plaintiffs' proposal to focus on data where the X-Client-Data Header
7 is missing, Google's counsel represented to the Court that it had no way to query its data to locate
8 private browsing sessions:

9 [W]e felt like there's quite a lot of speculation on behalf of [Plaintiffs' counsel] and we
10 wanted to explain to you that this is actually not something that we just have or can quickly
11 query, nor do we think their proposed path is one that will lead to that outcome.

12 *Id.* at 20:1-6.

13 [W]e do not have the information to identify the plaintiffs' private browsing sessions. I
14 know [Plaintiffs' counsel] doesn't like that, but that is the reality.

15 *Id.* at 24:11-13.

16 I'm going to say, we don't track people in private browsing mode.

17 *Id.* at 25:22-23.

18 80. Google failed to acknowledge its efforts at flagging potential Incognito traffic and
19 its use of the X-Client-Data-Header in that process.

20 81. Several months later, on December 3, 2021, Plaintiffs deposed Chris Liao. Mr. Liao
21 testified that Google abandoned any efforts to identify Incognito traffic within its logs. When asked
22 if Google "explore[d] whether or not you would use the X-Client Data header as a signal" for
23 detecting Incognito traffic and "what was the conclusion on that?" Mr. Liao responded: "Yes ...
24 We did explore the use of [X-Client-Data Header]. In the end it was determined that the accuracy
25 of using that header as the indication for incognito mode is rather low." Dkt. 429-19 (Liao Tr.)
26 136:2-11. Mr. Liao likewise testified:

27 [T]here was discussion around proxy signals that we can use to approximate incognito
28 traffic. However, we were not able to identify any definitive or reliable signal to identify
incognito mode in the end.

Id. at 133:23-134:3.

[I]t was determined that there was no reliable way to technically detect incognito in a definitive and reliable and accurate manner. And as a result, *no further action was taken to build such a hypothetical signal.*

Id. at 134:15-20 (emphasis added).

As I stated before, we do not have a reliable *signal to infer incognito* mode at this time we receive an ad query. And as a result, we are also unable to infer incognito mode using the same set of signals from the logs.

Id. at 140:6-10 (emphasis added).

82. Mr. Liao's testimony was incomplete and therefore misleading. Mr. Liao failed to acknowledge the fact that Google was using the undisclosed Incognito-detection bits with the X-Client-Data Header to log traffic as "incognito" within [REDACTED] logs, including in (i) the [REDACTED] logs for the maybe_chrome_incognito bit and (ii) at least [REDACTED] logs for the "is_chrome_incognito" bit where the proto comments say "[r]epresents if an entry comes from a Chrome web browser in the incognito [] mode." See Dkt. 535-5 (Letter from Google's counsel).

C. Court Orders Required Google to Produce Plaintiffs' Data and Identify Relevant Data Sources

1. The Court's April 30, 2021 Order Re: Production of Plaintiffs' Data

83. During the *Brown* portion of the April 29, 2021 hearing, the Court provided the following guidance to Google:

Well, but what the Plaintiffs are asking for is pieces of information from different places because they want to see if they can piece together, by combination of that information, class members. And that's why – I mean, it seems to me that they have a right to try to do that with whatever information you have.

Brown Dkt. 170-4 (4/29/21 *Brown* Hearing Tr.) at 19:2-7. The Court further instructed Google that Plaintiffs "can test it. They can test it and they can make of the data what they will." *Id.* at 20:7-8.

84. During a June 2, 2021 discovery hearing, the Court again instructed Google that Plaintiffs were entitled to their data:

I think it is appropriate for Plaintiffs to be able to test that statement and that position in some fashion, whether it is flat out the clean room proposal or something else, some other form of access, but there needs to be some way for the Plaintiffs to understand and to test or challenge whether or not these unauthenticated identifiers can be derived from authenticated identifiers.

1 Dkt. 194-4 (6/2/21 Hearing Tr.) at 33:1-7.

2 85. The Court subsequently ordered the parties to brief P3 (class member data), P6
3 (class member identification), and P16 (X-Client-Data) disputes, including Plaintiffs’ request for
4 cleanroom access to tools that could query Google’s data and Plaintiffs’ request for the production
5 of data lacking any X-Client-Data Header. Dkt. 191-1 at 2.

6 86. The parties filed their Court-ordered joint discovery letter brief regarding Dispute
7 P16 on July 9, 2021. Dkt. 217-4. In their brief, Plaintiffs explained that they sought this data to
8 “identify class members and determine what data Google collected (and continues to collect) from
9 their private browsing activities, using the empty X-Client-Data header field as the starting point.”
10 *Id.* at 4.

11 87. In opposition, Google represented that producing the information sought would be
12 “burdensome and not proportional because Google would have to produce records (including
13 confidential business information related to fields collected) that have nothing to do with the
14 claims at issue here.” *Id.* at 10.

15 88. In making its burden argument, Google failed to acknowledge that Google had,
16 since 2017, been using at least two bits to log potential Incognito traffic in [REDACTED] Google logs
17 (is_chrome_incognito and is_chrome_non_incognito)—using the absence of the X-Client Data
18 Header as one factor.

19 89. Google also did not inform the Court that within the last month Google had
20 implemented the “maybe_chrome_incognito” bit within [REDACTED] additional Google logs—also using the
21 absence of the X-Client-Data Header as a criterion.

22 90. The Court referred these disputes to Special Master Brush. Dkt. 221. On
23 September 14, 2021, in response to the Special Master’s request that Google summarize its data
24 production to date, Google acknowledged that “Google has not produced data keyed to the
25 following information Plaintiffs provided”:

- 26 • “User-agent. Google does not use user-agents as identifiers and user-agents are
27 not sufficiently unique to identify individual users.”
28

- “X-Client-Data header. Google does not use X-Client-Data-Header as an identifier and the header is not sufficiently unique to identify any individual user.”
- “IP Address. Google does not use IP address as an identifier and IP addresses are not a reliable means to identify individual users.”
- “NID cookies (aka Zwieback). This is a cookie Google does not use for Display Ads but rather uses to optimize Google.com search results, which is out of scope.”

Dkt. 291-9 (Pls.’ Oct. Sanctions Mot. Ex. H).

2. The Court’s September 16, 2021 Order Re: Production of Plaintiffs’ Data

91. On September 16, 2021, the Court issued a further order concerning Google’s production of data and the Special Master process. That order outlined three steps that the parties were to follow under the supervision of the Special Master. Dkt. 273 at 1-2.

- a. *First*, by “September 17, 2021, Google will identify to the Special Master and Plaintiffs all databases and data logs (collectively, ‘data sources’) that may contain responsive information.” *Id.* at 1. The Court further directed that “[f]or each data source, Google will provide, at a minimum” the “name of the database or data log,” “a description of the data source’s purpose and function,” and various categories of information about the logs’ retention status. *Id.* at 1-2.
- b. *Second*, for data sources that Plaintiffs selected to be “subject to searches and production for responsive records,” Google “will provide at a minimum: (1) the data schema; (2) definitions and descriptions of each field; (3) tool(s) which Google employees (‘Googlers’) use to search each data source; and (4) instruction sets and manuals for all tools identified as being used by Googlers to search any data source identified in this step”
- c. *Third*, the “Special Master will supervise a meet and confer with the Parties to create search strings for each data source and agree upon a production format. The Special Master will officiate and resolve disputes.” *Id.* at 2.

d. The Court noted its expectation “that the productions that will result from this process will be completed by the October 6, 2021 deadline previously ordered by this Court.” *Id.*

92. Google failed to comply with Step 1 of the Court’s September 16, 2021 Order. Specifically, in connection with Step 1, Google failed to identify any of the [REDACTED] logs in which the “is_chrome_incognito” and “is_chrome_non_incognito” fields had been logged since 2017. Google also failed to identify all but [REDACTED] of the [REDACTED] logs in which the “maybe_chrome_incognito” fields had been logged since June and July 2021.

3. The Court’s November 12, 2021 Order Regarding Production of Plaintiffs’ Data

93. On October 20, 2021, the Special Master issued a Report and Recommendation on the referred discovery disputes. Dkt 299.

94. On November 12, 2021, the Court issued an order concerning the Parties’ objections to the Special Master’s Report and Recommendation. On *de novo* review, the Court upheld the Special Master’s factual finding that Google had not produced Plaintiffs’ data:

[T]he Court finds that the Special Master’s factual conclusions regarding the deficiencies in Google’s production of information about searches conducted to date as well as production of Plaintiffs’ and putative class data . . . are well founded and adopts those findings. As previously noted by this Court, Google knows what data it has collected regarding Plaintiffs and putative class members and where the data may be found, therefore Google must produce the information and data as directed herein.

Dkt. 331 at 3.

95. The Court further ordered an iterative search process. In doing so, the Court noted that to the extent the order “requires the significant commitment of time, effort, and resources across groups of engineers at Google on very short timelines, that burden is in proportion to the demands of these class litigations and arises, at least in part, as a result of Google’s reticence thus far to provide critical data source information in these actions.” *Id.* at 4-5. The specifics of the process directed by the Court’s order were as follows:

a. The Court ordered that “Google shall provide a declaration, under penalty of perjury from Google, not counsel, that 1. To the best of its knowledge, Google has

provided a complete list of data sources that contain information relevant to Plaintiffs' claims; and 2. All responsive data related to the Named Plaintiffs have been produced from all searched data sources in the respective prior searches." Dkt. 331-1 ¶ 1. The Court subsequently ordered that the declaration also be filed with the Court. Dkt. 336.

- b. The Court further ordered that "within four days of the date of this Order Google is to provide to the Special Master full schemas, a list of ALL fields with their descriptions" and other information for "data sources Plaintiffs specify" from the "list of potentially relevant data sources provided by Google ..." Dkt. 331-1 ¶ 3.
- c. The Court's order permitted Plaintiffs to propose "search terms" to the Special Master within "two days of Google's compliance" with the requirement to produce full schema. *Id.* ¶ 4. The Court's order required Google to complete the search and provide results to the Special Master "within three days." *Id.*
- d. The Court ordered that Plaintiff could then conduct up to three additional, iterative searches, in which (1) Plaintiffs would submit updated search criteria within "two days of receipt of productions" and (2) Google would produce search results "within three days of being provided with updated search criteria" *Id.*

96. The Court's November 12, 2021 order authorized the Special Master "to order Google to provide additional information" and "to order Plaintiffs to modify and resubmit any input request." Dkt. 331 at 5. The Court also stated that "[p]ursuant to Rule 53(c)(1)(B), the Special Master is authorized to take all appropriate measures to perform his duties fairly and efficiently and to enforce this Order as he deems appropriate including modifying this Order, issuing further order, [and] convening conferences of the Parties ..." *Id.* at 4-5.

i) ***Golueke Declaration***

97. On November 18, 2021, Google filed the Court-ordered declaration, signed by Andre Golueke, a Discovery Manager within the Legal Department at Google. Dkt. 338.

1 98. As a Discovery Manager, Mr. Golueke was aware of the work that Google
2 personnel performed to comply with Google’s discovery obligations in this case and to comply
3 with this Court’s orders. Mr. Golueke specifically obtained information from the Google engineers
4 and other Google personnel tasked with identifying and searching relevant, responsive data
5 sources. *Id.* ¶ 2.

6 99. The Golueke declaration stated: “To the best of my knowledge and informed
7 understanding, Google has provided a complete list of sources that contain information about
8 Plaintiffs relevant to Plaintiffs’ claims. The data sources are listed in Exhibit A.” *Id.* ¶ 3.

9 100. Exhibit A to Mr. Golueke’s declaration did not include (1) any of the [REDACTED] logs in
10 which Google has logged “is_chrome_incognito” and “is_chrome_non_incognito” fields since
11 2017 and [REDACTED] of the [REDACTED] logs in which Google has logged the “maybe_chrome_incognito” field
12 since June and July 2021. *See* Dkt. 337-4.

13 101. Exhibit A to the Golueke declaration disclosed just [REDACTED] of the [REDACTED] logs in which
14 Google had implemented the “maybe_chrome_incognito” field: (1) [REDACTED] and
15 (2) [REDACTED]. *Id.*

16 102. The Court finds that the Golueke declaration was incomplete and as such
17 misleading. The declarant’s “informed understanding” could and should have included the [REDACTED]
18 logs in which Google had logged “is_chrome_incognito” and “is_chrome_non_incognito” fields
19 since 2017 as well as all of the [REDACTED] logs in which Google had logged the
20 “maybe_chrome_incognito” field since June and July 2021.

21
22 ii) *Google’s Production of Schema Without Disclosing Incognito-*
23 *Detection Fields*

24 103. [REDACTED] logs such as the [REDACTED] and
25 [REDACTED] logs referred to in Exhibit A to the Golueke Declaration
26 include thousands of fields, and Google claims that it does not maintain a tool to output schema
27 for such large logs. Google substantiated the engineering burdens and technical limitations that
28 precluded producing full schema. *See* Dkt. 527-4 at 15–16.

1 104. In light of this technical limitation, Google asked the Special Master to allow
2 Google to produce only the output of a preexisting tool called [REDACTED] which
3 automatically generates a list of the 100 largest fields in a given [REDACTED] log. *See* Dkt. 528-7 at
4 Ex. 43.

5 105. The Special Master permitted Google to do so.

6 106. Because “maybe_chrome_incognito” was not one of the 100 largest fields in the
7 relevant log, it was not included in the log schema Google produced.

8 107. The “maybe_chrome_incognito” field was not otherwise disclosed or
9 acknowledged by Google at this juncture.

10 108. The Court finds that when Google proposed use of the [REDACTED] tool to
11 the Special Master, Google could and should have informed the Special Master of the existence of
12 the maybe_chrome_incognito bit and the fact that use of the [REDACTED] tool would mean
13 this bit would not be captured in the schema for the relevant logs.

14 **III. Google’s Discovery Deficiencies Come to Light**

15 109. On November 24, 2021, Google produced a July 2020 email concerning Mr. Leung
16 and his work to identify Incognito traffic. In that email, Mr. Leung discussed a “log analysis of
17 Chrome Incognito” and identified [REDACTED] particular logs that Mr. Leung was studying for this
18 analysis. Dkt. 429-39 (GOOG-CABR-05280756).

19 110. On February 8, 2022, Plaintiffs asked Google to produce custodial documents from
20 Mr. Leung’s files, with a more limited set of search terms and time period than was used for other
21 custodians. Dkt. 398-1. Google objected, arguing that Plaintiffs’ request was untimely and
22 unnecessary. *See* FF ¶ 61. Plaintiffs responded that Google had never disclosed Mr. Leung as a
23 potential custodian with relevant information and likewise delayed in producing documents about
24 his role in the Incognito detection analysis. Dkt. 398-1.

25 111. The Court agreed with Plaintiffs, ordering Google to provide hit counts for the
26 limited set of search terms that Plaintiffs requested. Dkt. 401. Plaintiffs’ proposal hit on 982
27
28

documents, and Google shortly thereafter made a production from Mr. Leung's custodial files. Dkt. 429-3 (Opening Mao Decl.) ¶ 5.

112. Google's February 18, 2022 production of documents from Mr. Leung's files confirmed that Google had actually implemented "maybe-chrome-incognito" in Google logs. Dkt. 429-21 (GOOG-BRWN-00845312) at -18 (Leung: "are we already logging maybe-chrome-incognito in search [REDACTED] already?" Liu: "yes").

113. Mr. Leung's custodial documents also revealed that Google engineer Mandy Liu was involved in Google's efforts to develop and implement maybe_chrome_incognito. *See* Dkts. 429-47, 429-49, and 429-51 (instant messages between Mr. Leung and Ms. Liu).

114. After reviewing Mr. Leung's documents, Plaintiffs moved to compel Google to produce custodial documents from the files of Ms. Liu, again using limited search terms and time periods. Over Google's objection, this Court ordered production of Ms. Liu's custodial documents and permitted Plaintiffs to depose her for two hours. Dkt. 437.

115. On March 2, Google produced documents from Ms. Liu's files.

116. Ms. Liu's documents demonstrated that by February 3, 2022, Google had achieved a level of confidence in its tracking with maybe_chrome_incognito. Dkt. 535-11 GOOG-BRWN-00846508) at -08 ("Good news: Chrome incognito rate is ~3%!").

117. During Ms. Liu's deposition, on March 8, 2022, she explained that Google improved the accuracy of maybe_chrome_incognito by "exclud[ing] mobile app traffic from Chrome traffic." Dkt. 510-11 (Liu Tr.) 40:8-20.

118. On March 4, 2022, Plaintiffs served a single-topic Rule 30(b)(6) deposition notice seeking corporate testimony concerning any Google Incognito detection bit, including the maybe_chrome_incognito bit, is_chrome_incognito bit and is_chrome_non_incognito bit. Supp. Mao Decl. ¶¶ 9-11.

119. On March 1, 2022, Google agreed to designate Dr. Caitlin Sadowski to testify about the latter two bits.

1 120. On March 10, 2022, during Dr. Sadowski's deposition, Plaintiffs learned that
2 Google had been using these bits to log traffic as Incognito in [REDACTED] Google logs since 2017. *See* FF
3 ¶¶ 15-16.

4 121. On March 10, also during Dr. Sadowski's deposition, Google for the first time
5 identified Quentin Fiard as a person knowledgeable about Google's "is_chrome_non_incognito"
6 bit. *See* FF ¶ 21.

7 **IV. Google's Attempt to Justify Its Discovery Deficiencies**

8 122. Google makes several arguments in an attempt to justify the discovery deficiencies
9 discussed above, which the Court has considered and addresses below.

10 **A. Google's Contentions Regarding Prior Productions**

11 123. Google cites documents it produced concerning the Incognito-detection bits (*see*
12 *Opp.* at 4-6, 12; Google Prop. Findings ¶¶ 18-26), but those productions do not excuse or justify
13 Google's failure to otherwise disclose those Incognito-detection bits.

14 124. First, Google cites no produced document concerning Google's
15 "is_chrome_incognito" bit, even though that bit has been used by Google since 2017.

16 125. Second, in its production of over one million documents (*see* Dkt. 566), Google
17 cites only one document concerning Google's "is_chrome_non_incognito" bit, which indicated
18 the bit had "only been used by the [REDACTED] team" (Dkt. 527-16 at Ex. 15 (GOOG-BRWN-
19 00176433) at -34). Google produced this document in June 2021.

20 126. Google's production of this and a handful of other documents (Dkt. 527-16 at Ex.
21 12 (GOOG-CABR-00901891), Ex. 17 (GOOG-CABR-03669472) and Ex. 18 (GOOG-CABR-
22 03669574) regarding the Incognito-detection bits does not excuse Google's failure to timely
23 identify witnesses, additional documents, and data sources relevant to this litigation.

24 **B. Google's Contention That It Has Provided Additional Discovery Concerning
the Incognito-Detection Bits Since Plaintiffs Filed the Instant Motion**

25 127. Google notes that it has produced substantial additional discovery on the bits at
26 issue since Plaintiffs filed the instant Motion. Google Prop. Findings ¶¶ 27-30. This additional
27 discovery includes producing Mr. Leung, Ms. Liu, and Rule 30(b)(6) witness Dr. Caitlin Sadowski
28

for depositions, source code descriptions for the “maybe_chrome_incognito” bit, and field names for nineteen logs containing that field. Dkt. 527-4 at 13, 16–17. Pursuant to the Special Master process, Plaintiffs have requested and Google is conducting searches of logs containing the three bits at issue. Dkt. 527-6.

128. However, as Google acknowledges, this discovery was not provided until *after* Plaintiffs filed the instant Motion, and not until close to (or in some cases after) the close of fact discovery. Untimely compliance does not excuse Google’s failure to identify witnesses, documents and data sources relevant to this litigation.

C. Google’s Contentions Regarding Reliability of These Bits

129. Google asserts that its Incognito-detection bits are “unreliable” and only used for “approximation of aggregate Chrome Incognito traffic.” Opp. at 1-2; Dkt. 527-10 (Liao Decl.) ¶ 10; Dkt. 527-12 (Leung Decl.) ¶ 9. Relatedly, Google contends that although it is true that the Chrome browser does not send Google the X-Client-Data header when it is in Incognito mode, there are also other instances unrelated to whether Chrome is in Incognito mode in which the browser does not send the X-Client-Data header. Dkt. 527-12 (Leung Decl.) ¶ 5; Dkt. 568 (4/21/11 Hearing Tr.) at 159 (Liao testimony); 172 (Leung testimony); 201-203 (Sadowski testimony).

130. Plaintiffs contend that Google’s Incognito-detection bits use more than just the absence of the X-Client-Data header and that these Incognito bits can be used to reliably identify Incognito traffic. *See* Dkt. 535-17 (Thompson Decl.) ¶¶ 8-16.

131. The reliability of using the Incognito-detection bits to identify Incognito traffic, let alone specific Incognito users, is in dispute. Nevertheless, the bits are within the scope of discoverable information. *See* Fed. R. Civ. Proc. 26(b). Google was not justified in unilaterally deciding not to provide discovery regarding the bits.

D. Google’s Contentions Regarding Its Use of These Bits

132. Google contends that user identification was never the purpose of the three Incognito-detection bits. Opp. at 13 (citations omitted). Google argues that the “maybe_chrome_incognito” bit “does not change” the circumstance that “consistent with Google’s Privacy Policy, Google does not associate data from signed-out Incognito sessions with a Google

1 account.” Opp. at 2. Google states that the “is_chrome_incognito” and
2 “is_chrome_non_incognito” bits were created in 2017 by “a team improving geolocation
3 information connected with Google’s Search engine (the [REDACTED] Team”) and stored in logs
4 managed by that team ([REDACTED] logs’).” *Id.* (citations omitted). According to Google, “[t]he
5 [REDACTED] team never used these bits to identify specific Incognito users and has not relied on these
6 bits for any purpose since 2018.” *Id.* (citation omitted).

7 133. Google’s contentions regarding its limited use of the Incognito-detection bits do
8 not justify or excuse Google’s discovery misconduct regarding those bits.

9 134. As bits specifically designed by Google to attempt to distinguish Chrome traffic
10 originating from Incognito mode from traffic coming from non-Incognito mode, these two bits
11 were very clearly relevant to the issues in this litigation, consistent with Federal Rule of Civil
12 Procedure 26.

13 135. Google’s failure to timely provide discovery regarding the Incognito-detection bits
14 impaired Plaintiffs’ ability to fully assess and test Google’s assertions regarding its limited use of
15 those bits.

16 136. The Court rejects Google’s claim that discovery on these bits was “entirely
17 irrelevant.” Opp. at 14. To the contrary, the bits were within the proper scope of discovery in this
18 case.

19 **E. Google’s Contentions Regarding Production of Documents Involving**
20 **Employees at Issue**

21 137. Google asserts that Plaintiffs should have identified Mr. Liao, Mr. Leung, and Ms.
22 Liu as custodians based on other Google productions (Opp. at 11), but those productions do not
23 excuse Google’s omission of those individuals from Google’s prior discovery responses.

24 138. Google’s argument that it produced “close to 10,000 documents with those people’s
25 names on it” (Dkt. 568 (4/21/22 Hearing Tr.) at 17:17-20) does not excuse Google’s failure to list
26 those witnesses in discovery responses; it is instead further proof that Google should have known
27 those witnesses should have been disclosed by Google.
28

1 139. Google should have identified Mr. Liao, Mr. Leung, Ms. Liu, and Mr. Fiard in the
2 list of individuals provided in February 2021 and in its March 2021 interrogatory response (*see*
3 *generally* FF ¶¶ 45-56), and it is not sufficient to merely point to other documents in Google's
4 productions.

5 **E. Google's Contentions Regarding Production of an Employee List in *Calhoun***

6 140. Google asserts that it made certain disclosures in *Calhoun* that should have caused
7 the *Brown* Plaintiffs to identify these individuals sooner. Opp. at 11.

8 141. Google cross-produced the *Calhoun* list (identifying Chris Liao, Bert Leung, and
9 Mandy Liu, but not Quentin Fiard) in *Brown* on September 1, 2021, which was after the August
10 24 deadline set by the Court for identification of custodians in *Brown*.

11 142. Although the *Calhoun* list identified Mandy Liu, Bert Leung, and Chris Liao, it did
12 not disclose their work on Google's development of the "maybe_chrome_incognito" field.

13 143. That document also did not identify Quentin Fiard, whom Google's 30(b)(6)
14 representative identified as knowledgeable on the "is_chrome_non_incognito" field.

15 144. Google has provided no explanation for why it did not disclose these witnesses to
16 the *Brown* Plaintiffs in (a) its February 2021 custodian list in response to RFP Nos. 11-12 or (b)
17 its March 2021 response to Interrogatory No. 4. Nor has Google provided any explanation for its
18 failure to disclose Mr. Fiard.

19 **F. Google's Contentions Regarding Mr. Golueke's Declaration**

20 145. On November 18, 2021, in response to the Court's order, Google submitted the
21 sworn declaration of Mr. Golueke listing certain data sources. Dkt. 338.

22 146. With its response to the present Motion, Google submitted a second declaration by
23 Mr. Golueke admitting that he "was not aware" at the time of his November 2021 declaration that
24 "the maybe_chrome_incognito[]bit existed" or that [REDACTED] "logs contained fields labeled
25 'is_chrome_incognito' or 'is_chrome_non_incognito mode.'" Dkt. 528-5 ¶¶ 10-11.

26 147. Mr. Golueke's November, 2021 declaration failed to include a complete list of data
27 sources Google has used (and was using at the time) to distinguish Incognito traffic from non-
28

Incognito traffic. Mr. Golueke should have been aware of data sources containing the Incognito-detection bits. *See* FF ¶ 102.

G. Google’s Contentions Regarding Mr. Liao Testimony

148. On December 3, 2021, Mr. Liao testified that Google had no “reliable signal to infer incognito mode” and as a result was “unable to infer incognito mode using the same set of signals from the logs.” Dkt. 429-19 (Liao Tr.) at 140-6-10. Mr. Liao did not identify the maybe_chrome_incognito bit or any other incognito-detection bit. *Id.*

149. Mr. Liao states that he interpreted the word “signal” to require that a signal must be for a “dedicated purpose” and that he would use the term “heuristic” rather than “signal” for the maybe_chrome_incognito bit. Dkt. 527-10 (Liao Decl.) ¶¶ 5, 7, 13.

150. In the context of the questions asked, Mr. Liao could and should have revealed the existence and Google’s use of the maybe_chrome_incognito bit, with which he was intimately involved. *See* FF ¶ 82.

H. Google’s Data Schema Contentions

151. In its Opposition to the Motion, Google does not claim that it was unaware of these Incognito-detection bits at the time that it was producing data schemas to the Special Master and Plaintiffs.

152. In light of the obvious relevance of the Incognito-detection bits, Google should have informed the Special Master and Plaintiffs of their existence when Google made its proposal to produce only the “largest 100 fields” in those data sources to ensure that any production included those bits.

153. The fact that Google was able to produce more comprehensive schema for the logs containing the “maybe_chrome_incognito” field after Plaintiffs moved for sanctions demonstrates that these schema could have and should have been produced when ordered in the process before the Special Master.

1 **V. Conclusions Regarding Google’s Discovery Misconduct**

2 154. Evidence concerning the existence and use of the three Incognito-detection bits was
3 relevant to both Plaintiffs’ claims and Google’s defenses and was within the scope of discovery.
4 Fed. R. Civ. Proc. 26(b).

5 155. Google’s unjustified failure to provide information regarding the Incognito-
6 detection bits during discovery was improper and constitutes discovery misconduct.

7 **VI. Plaintiffs Have Been Prejudiced by Google’s Discovery Misconduct**

8 156. Plaintiffs contend that as a result of Google’s discovery misconduct, they have been
9 prejudiced in the following ways: (1) inability to obtain relevant documents; (2) inability to obtain
10 relevant testimony; (3) impairment of the Special Master process; (4) impairment of expert
11 discovery; (5) Google’s spoliation of data; and (6) impairment of Plaintiffs’ ability to rebut
12 Google’s contentions. Pl. Prop. Findings ¶¶ 190-215.

13 157. As discussed in this section, the Court finds that Plaintiffs have been prejudiced by
14 Google’s discovery misconduct. The prejudice has been mitigated, in part, because Plaintiffs were
15 ultimately able to conduct discovery regarding the Incognito-detection bits and at certain key
16 junctures did not seek additional discovery or other relief. Nevertheless, “[l]ast-minute tender of
17 documents does not cure the prejudice to opponents.” *North American Watch Corp. v. Princess*
18 *Ermine Jewels*, 786 F.2d 1447, 1451 (9th Cir. 1986). Accordingly, “[b]elated compliance with
19 discovery orders does not preclude the imposition of sanctions.” *Id.*; see also *Spiers v. City & Cnty.*
20 *of San Francisco*, No. 20-cv-01357-JSC, 2022 WL 612663, at *2 (N.D. Cal. Mar. 1, 2022)
21 (“Litigation cannot work if a party is free to withhold responsive documents ... and [later] ...
22 simply state additional discovery can cure any prejudice” (citation omitted)). “The issue is not
23 whether [Plaintiffs] eventually obtained the information that they needed, or whether [Google is]
24 now willing to provide it, but whether [Google’s] repeated failure to provide documents and
25 information in a timely fashion prejudiced the ability of [Plaintiffs to prepare their case for trial.”
26 *Payne v. Exxon Corp.*, 121 F.3d 503, 508 (9th Cir. 1997).

A. Documents and Witnesses

158. As discussed above, Google improperly withheld documents and witnesses with information relevant to the Incognito-detection bits.

159. Nevertheless, based on the information that was produced, in some instances Plaintiffs could have acted earlier to seek discovery regarding the Incognito-detection bits. For example, in July 2021 Plaintiffs cited a document regarding “is_chrome_non_incognito” in briefing to the Court in which Plaintiffs argued that “Google maintains systems and processes to identify Incognito browsing, including ready-made tools that run queries based on the X-Client-Data header field.” Dkt. 217-4 at 4 (citing GOOG-BRWN-00176433). After citing the document identifying the “is_chrome_non_incognito_mode” bit in July 2021, Plaintiffs did not seek additional discovery on the “is_chrome_non_incognito_mode” bit until December 2021. *See* Dkt. 529-2 at Ex. 38.

160. Regarding the separate “maybe_chrome_incognito” bit, Google produced documents identifying and explaining its purpose, including design documents underlying the use of the bit, in September 2021. Dkt. 527-16 at Exs. 10, 12. Plaintiffs did not seek additional discovery on the “maybe_chrome_incognito” bit until February 2022. *See* Dkt. 429-3 ¶ 24.

161. As for the witnesses that Google failed to disclose, Plaintiffs eventually took the depositions of Mr. Liao, Mr. Leung, Ms. Liu, and Dr. Sadowski.

162. These considerations, while they mitigate the prejudice to Plaintiffs stemming from Google’s discovery misconduct, do not eliminate the prejudice to Plaintiffs.

163. An example of Google’s deficient production of documents is the fact that Google produced some documents regarding the “maybe_chrome_incognito” bit, but once Plaintiffs filed the present Motion, Google produced additional documents regarding this bit that were approximately nine times the number of documents originally produced. This late production demonstrates that Google failed to produce relevant documents during the course of discovery.

164. In addition, at the April 21, 2022 hearing, Plaintiffs argued, and Google did not refute, that Google did not produce any documents regarding the “is_chrome_incognito” bit.

1 165. Google has also never attested that the logs identified above are the only logs
2 containing the Incognito-detection bits.

3 166. As for witnesses, as discussed above, Google had an affirmative obligation to
4 disclose Mr. Leung, Ms. Liu, Mr. Liao, and Mr. Fiard and their area of relevant knowledge but did
5 not do so. Although Plaintiffs eventually took the depositions of Mr. Liao, Mr. Leung, Ms. Liu,
6 and Dr. Sadowski, if Google had complied with its disclosure obligations, Plaintiffs could have
7 sought these depositions earlier and, as for Ms. Liu, without time restrictions. Moreover, the Court
8 notes that Google fought Plaintiffs' efforts to obtain documents and/or depositions from Mr. Leung
9 and Ms. Liu. *See* Dkt. 399, 424.

10 167. In addition, as Plaintiffs now argue, had they known about the Incognito-detection
11 bits or obtained documents about them earlier in the case, they "could have used such evidence
12 during depositions of any number of Google witnesses" and "would have been able to identify and
13 depose other individuals with knowledge about the Incognito-detection bits, including Mr. Fiard."
14 *Pls. Prop. Findings* ¶¶ 196-197.

15 168. Notwithstanding these impacts on Plaintiffs, given the stage of the case and the fact
16 that Plaintiffs did not request additional document productions or depositions at the April 21, 2022
17 hearing on the Motion, the Court concludes that ordering additional document productions (other
18 than any ongoing or further productions underway as part of proceedings before the Special
19 Master) or depositions is not warranted.

20 169. However, Plaintiffs are entitled to a representation from Google that other than the
21 logs identified thus far as containing Incognito-detection bits, no other such logs exist.

22 170. In sum, although the discovery Google ultimately provided on the Incognito-
23 detection bits mitigates the prejudice suffered by Plaintiffs, prejudice still exists. The course of
24 discovery may have been different, more focused, or focused on different issues had Google
25 complied with its discovery obligations. Google's discovery misconduct has, among other things,
26 prevented Plaintiffs from fully exploring and testing the ability to link Incognito traffic to class
27 members' "authenticated" or Google Account data.

28

1 171. Accordingly, the Court finds that by withholding relevant discovery focused on
2 Google's Incognito-detection bits, Google prejudiced Plaintiffs' ability to fully address the
3 assertions by Google, its counsel, and its witnesses.

4
5 **B. Special Master Process**

6 172. Plaintiffs claim that Google's belated disclosures of these Incognito-detection bits
7 undermined Plaintiffs' ability efficiently and timely obtain relevant data through the Special
8 Master process. Pls. Prop. Findings ¶ 200.

9 173. The Court and Parties are well aware of the Parties' time and resources expended
10 before the Special Master on a vast array of issues relating to the identification of relevant data
11 sources and production of relevant data from those sources. The issues in this Motion, the
12 identification and production of clearly relevant data relating to Incognito-detection bits, are but a
13 small part of a complex process spanning nearly a year of proceedings before the Special Master.
14 As noted above (FF ¶¶ 139-141), the reliability of these bits in identification of putative class
15 members remains the subject of strenuous debate. As a result, it is neither possible nor practicable
16 to quantify either the temporal or monetary impact of these particular issues on the greater process
17 before Special Master.

18 **C. Experts**

19 174. The deadline for Plaintiffs to submit opening expert reports was April 15, 2022
20 (except for Plaintiffs' damages report, which was due on April 22). Dkt. 537.

21 175. Plaintiffs argue their experts were unable to fully test the Incognito-detection bits
22 while fact discovery was open. However, Plaintiffs have not identified specific ways in which
23 Google's discovery misconduct impacted the expert discovery process.

24 176. Google has recently represented that data testing the bits would be produced by no
25 later than May 20, 2022, when the parties' rebuttal expert reports are due. *See* Hearing Ex. 75 (Apr.
26 15, 2022 Email from Google Counsel to Special Master Brush).³ Plaintiffs argue that even if

27 _____
28 ³ Production issues continue before the Special Master but as of the date of this order this was the target date for this production.

1 Google produces data on or before May 20, 2022, Plaintiffs and their experts will not be able to
2 verify the results. Pls. Prop. Findings ¶ 208.

3 177. However, Plaintiffs did not seek an extension of the expert deadlines on this basis,
4 even though they requested and received an extension of certain expert deadlines for other reasons
5 after the filing of the present Motion. *See* Dkt. 519, 521, 553.

6 178. Accordingly, the Court concludes that Plaintiffs have not identified specific
7 prejudice or sought specific relief with respect to experts.

8
9 **D. Data Preservation**

10 179. In their opening brief on the Motion, Plaintiffs mentioned spoliation in passing.
11 Dkt. 429-1 at 22. In their Reply, Plaintiffs argued that Google spoliated relevant “incognito” data.
12 Dkt. 535-1 at 1, 12. Plaintiffs also proposed findings on the issue of spoliation (Pl. Prop. Finding
13 ¶¶ 209-212) and argued at the April 21, 2022 hearing on the Motion that Google had destroyed
14 evidence (Dkt. 568 (4/21/22 Hearing Tr.) at 26).

15 180. Plaintiffs’ assertions regarding spoliation or destruction of evidence appear to be
16 based on an argument that Google secured a protective order from this Court on preservation in
17 April 2021 without informing the Court that it had by then been using the Incognito-detection bits.
18 *See* Dkt. 535-1 at 12 (arguing that Google failed to preserve class member data associated with
19 Incognito-detection bits and “Google’s only apparent justification for deleting such data during
20 the course of the litigation is that it secured a protective order from the Court concerning the
21 deletion of certain logs *in their entirety* ...”); Dkt. 568 (4/21/22 Hearing Tr.) at 26 (arguing that
22 because Plaintiff did not know and could not raise the issue of the Incognito-detection bits during
23 the argument over the protective order, “that relevant data got swept up with everything else that
24 Google was permitted to destroy.”).

25 181. At the April 21, 2022 hearing, Google’s counsel represented that “[t]he search
26 request that [Plaintiffs] gave to the Special Master on April 14th include[s] all logs that contain
27 these three bits [and] [w]e are searching those logs under the Special Master’s guidance.” Dkt. 568
28

1 (4/21/22 Hearing Tr.) at 134. Google’s counsel also represented that “all of the logs that contained
2 the bits at issue have been included in the Special Master’s preservation proposal.” *Id.* at 135.

3 182. The Court concludes that there is no basis for a finding that Google spoliated
4 evidence.

5 **CONCLUSIONS OF LAW**

6 1. “When a district court decides to impose sanctions or discipline, it must clearly
7 delineate under which authority it acts to ensure that the attendant requirements are met.” *Williams*
8 *v. Williams*, No. 07-4464, 2013 WL 3157910, at *4 (N.D. Cal. June 20, 2013) (citing *Weissman v.*
9 *Quail Lodge, Inc.*, 179 F.3d 1194, 1200 (9th Cir. 1999)).

10 2. Federal courts have the power to sanction litigants for discovery misconduct under
11 both the Federal Rules of Civil Procedure and the court’s inherent power to prevent abusive
12 litigation practices. *See Leon v. IDX Sys. Corp.*, 464 F.3d 951, 958 (9th Cir. 2006).

13 3. In their Proposed Findings of Fact and Conclusions of Law, Plaintiffs state that they
14 seek sanctions under Federal Rule of Civil Procedure 37(b), Rule 37(c), Rule 37(e), and the Court’s
15 inherent power. Pl. Prop. Findings ¶ 3 (Conclusions of Law).⁴

16 **I. Federal Rule of Civil Procedure 37(b)**

17 4. Plaintiffs’ Motion expressly seeks sanctions under Rule 37(b). Dkt. 429-1 at 17,
18 19-23.

19 5. Under Federal Rule of Civil Procedure 37(b), where a party “fails to obey an order
20 to provide or permit discovery,” the court “may issue further just orders” which “may include the
21 following:”

22
23 (i) directing that the matters embraced in the order or other designated facts be taken as
established for purposes of the action, as the prevailing party claims;

24 (ii) prohibiting the disobedient party from supporting or opposing designated claims or
25 defenses, or from introducing designated matters in evidence;

26
27 ⁴ The Court notes that Plaintiffs’ Motion seeks sanctions only under Rule 37(b) and the Court’s inherent powers.
28 Motion at 17, 19-23. The first mention of sanctions under Rules 37(c) and 37(e) is in Plaintiffs’ Reply. Dkt. 535-1 at
11-12. The Court addresses this issue in connection with the discussion of Rules 37(c) and 37(e) below.

- (iii) striking pleadings in whole or in part;
- (iv) staying further proceedings until the order is obeyed;
- (v) dismissing the action or proceeding in whole or in part;
- (vi) rendering a default judgment against the disobedient party; or
- (vii) treating as contempt of court the failure to obey any order except an order to submit to a physical or mental examination.

Fed. R. Civ. Proc. 37(b); *see also* *U.S. v. Sumitomo Marine & Fire Ins. Co., Ltd.*, 617 F.2d 1365, 1369 (9th Cir. 1980) “The choice among the various sanctions rests within the discretion of the district court.” *Sumitomo*, 617 F.3d at 1369.

6. Plaintiffs argue that Google violated three discovery orders: (1) the Court’s April 30, 2021 order requiring Google to produce all of the named Plaintiffs’ “authenticated” or “unauthenticated” data (Dkt. 147-1 at 2); (2) the Court’s September 16, 2021 order devising a three-step process for Google to produce the named Plaintiffs’ data to be supervised by Special Master Brush (Dkt. 273); and (3) the Court’s November 12, 2021 order re-starting the Special Master process with new requirements (Dkt. 331).

7. The Court agrees with Plaintiffs that Google violated all three orders.

8. The Court’s April 30, 2021 order required Google to produce all of the named Plaintiffs’ data (Dkt. 147-1), and the Court’s September 16, 2021 order set an October 6, 2021 production deadline (Dkt. 273). In its November 12, 2021 Order, the Court on *de novo* review upheld the Special Master’s finding that Google did not comply with these orders:

[T]he Court finds that the Special Master’s factual conclusions regarding the deficiencies in Google’s production of information about searches conducted to date as well as production of Plaintiffs and putative class data . . . are well founded and adopts those findings. As previously noted by this Court, Google knows what data it has collected regarding Plaintiffs and putative class members and where the data may be found, therefore Google must produce the information and data as directed herein.

Dkt. 331 at 3. Google has not asked the Court to revisit these findings, and the Court sees no reason to do so.

9. The Court now concludes that Google also violated the November 12, 2021 order.

10. The Court’s November 12 order required Google to “provide a declaration, under penalty of perjury from Google, not counsel, that [] To the best of its knowledge, Google has

provided a complete list of data sources that contain information relevant to Plaintiffs' claims." Dkt. 331.

11. In response to that order, Google submitted the declaration of Mr. Golueke (Dkt. 338), swearing under oath that "To the best of my knowledge and informed understanding, Google has provided a complete list of sources that contain information about Plaintiffs relevant to Plaintiffs' claims."

12. As discussed above, at that time, Google had not disclosed to Plaintiffs, the Court, or the Special Master [REDACTED] of the [REDACTED] Google logs containing the maybe_chrome_incognito bit, nor any of the [REDACTED] Google logs containing the is_chrome_incognito and is_chrome_non_incognito bits.

13. These [REDACTED] logs all track Incognito traffic and therefore plainly contain information relevant to Plaintiffs' claims, such that they should have been disclosed in September. Dkt. 273.

14. Google violated the Court's November 12 Order by not disclosing these [REDACTED] Google logs in connection with Mr. Golueke's declaration, where Google should have updated its initial list of logs and data sources to include them following the Court's November 12 Order.

15. Google has no justification for its decision to not disclose the [REDACTED] Google logs in response to the Court's November 12 Order.

16. Google has not explained why it failed to identify the [REDACTED] Google logs with maybe_chrome_incognito.

17. As for the other two bits, the Court is not persuaded by Google's argument that they are only contained within "Search" logs and, according to Google, irrelevant to the claims. Opp. at 14.

18. The Court's November 12 Order was not limited to logs that contain the specific data alleged to have been intercepted, and the Order clarified that one purpose of the process was to give Plaintiffs the "tools to identify class members using Google's data." Dkt. 331 at 4. The is_chrome_incognito and is_chrome_non_incognito bits are such tools, and they should have been disclosed, along with the [REDACTED] Google logs where they have been implemented.

1 19. The Court in this respect is in agreement with the Special Master, who in December
2 rejected Google’s argument that “Search” logs are irrelevant to this process when he ordered
3 Google to produce schema for the [REDACTED] log, which Bert Leung had studied for his
4 2020 Incognito detection analysis. *See* Dkt. 429-3 (Opening Mao Decl.) ¶ 28.

5 20. By that point, at latest, Google was on notice that it would need to identify Search
6 logs that can be used to detect Incognito traffic and thus identify class members; yet Google still
7 did not supplement its prior productions to include these [REDACTED] logs.

8 21. Plaintiffs argue that Google also violated the portion of the November 12 Order
9 requiring Google to, “within four days of the date of this Order . . . provide to the Special Master
10 full schemas, a list of ALL fields with their descriptions” and other information for “data sources
11 Plaintiffs specify” from the “list of potentially relevant data sources provided by Google . . .” Pls.
12 Prop. Findings ¶¶ 114-123. According to Plaintiffs, Google produced incomplete schema for some
13 of the logs that Google identified, including by omitting the maybe_chrome_incognito field from
14 the schemas Google provided for the only [REDACTED] logs Google identified that contain the
15 maybe_chrome_incognito bit. *Id.* ¶¶ 120-121.

16 22. Although Google argues that the Special Master granted Google’s request to limit
17 production to the “largest-100 fields” (Opp. at 15), when Google requested this permission from
18 the Special Master, Google had not yet disclosed the Incognito-detection bits to Plaintiffs or the
19 Special Master, let alone informed the Special Master that its limitation proposal would by
20 definition exclude key Boolean fields that detect Incognito traffic. *See* Dkt. 527-16 at Ex. 35
21 (October 1, 2021 Letter from Google Counsel to Special Master Brush). Accordingly, Google may
22 not rely on any purported permission from Special Master Brush.

23 23. Having concluded that Google violated three discovery orders, the Court must
24 assess whether and how to sanction Google. Plaintiffs specifically seek three sanctions:

- 25 1. Evidentiary sanctions in the form of an order precluding Google from making
26 certain arguments.

1 2. A jury instruction that “Google concealed and altered evidence regarding its
2 ability to identify Incognito traffic.”

3 3. Reimbursement of all fees that Plaintiffs paid to Special Master Brush.

4 Motion at 1.

5 **A. Evidentiary Sanctions Are Warranted**

6 24. The Court begins with Plaintiffs’ request for evidentiary sanctions. The Parties
7 agree that courts have the authority to impose evidentiary sanctions for discovery misconduct
8 under appropriate circumstances. *See* Motion at 19; Opp. at 17.

9 25. As discussed above, under Rule 37(b) a court may “prohibit[] the disobedient party
10 from supporting or opposing designated claims or defenses, or from introducing designated matters
11 in evidence.” Fed. R. Civ. Proc. 37(b)(2)(A)(ii).

12 26. “Preclusionary orders ensure that a party will not be able to profit from its own
13 failure to comply.” *Sumitomo*, 617 F.2d at 1369 (citation omitted).

14 27. Google argues that Plaintiffs have not suffered any prejudice, claiming that
15 Plaintiffs have now received discovery concerning the maybe_chrome_incognito bit. Opp. at 21-
16 22. But sanctions are warranted regardless of that belated and limited discovery. “[I]t is well-
17 established that ‘[b]elated compliance with discovery orders does not preclude the imposition of
18 sanctions.’” *Sas v. Sawabeh Info. Servs.*, 2015 WL 12711646, at *7 (C.D. Cal. Feb. 6, 2015)
19 (quoting *North American Watch Corp. v. Princess Ermine Jewels*, 786 F.2d 1447, 1451 (9th Cir.
20 1986)). “As the Ninth Circuit has explained, the ‘[l]ast-minute tender of documents does not cure
21 the prejudice to opponents.’” *Sas*, 2015 WL 12711646, at *7 (quoting *Princess Erime Jewels*, 786
22 F.2d at 1451); *see also* FF ¶ 157.

23 28. Here, as a result of Google’s violation of this Court’s orders, Google withheld
24 relevant discovery until or after the close of fact discovery. After considering relevant factors,
25 including prejudice to Plaintiffs, the Court concludes that a limited preclusion sanction is
26 warranted.

27

28

1 29. Such sanctions are appropriate because Google’s delay in providing discovery
2 concerning these Incognito-detection bits deprived Plaintiffs of “a meaningful opportunity” to
3 “comprehend” complex discovery. *Apple v. Samsung Elecs.* 2012 WL 1595784, at *3 (N.D. Cal.
4 May 4, 2012).

5 30. Google also does not dispute that Plaintiffs received virtually no discovery
6 concerning is_chrome_incognito and is_chrome_non_incognito prior to the filing of this Motion
7 on the eve of the close of fact discovery. *See generally* Opp. at 16-17 (discussing discovery
8 provided “[s]ince February 2022. Before that time, Google identified just one document alluding
9 to just one of these bits. Opp. at 12 (citing Dkt. 527-16 at Ex. 15 (GOOG-BRWN-00176433)).
10 Given the late identification of Mr. Fiard, Plaintiffs also never had an opportunity to seek Mr.
11 Fiard’s documents or question Mr. Fiard about these Incognito-detection bits.

12 31. Having concluded that evidentiary sanctions are warranted, the Court must decide
13 how to sanction Google. Because Plaintiffs do not seek any sanction amounting to a default
14 judgment or dismissal, the only question is whether the sanction bears “a reasonable relationship
15 to the subject of discovery that was frustrated by sanctionable conduct.” *Navellier v. Sletten*, 262
16 F.3d 923, 947 (9th Cir. 2001). Google does not dispute that this standard applies. *See* Opp. at 17.

17 32. Plaintiffs ask the Court to preclude Google from making any arguments about any
18 Incognito-detection bits for the duration of the case. Pls. Prop. Findings ¶ 31.

19 33. According to Plaintiffs, Google intends to oppose certification primarily on the
20 ground that Plaintiffs cannot identify their class, including by arguing that these Incognito-
21 detection bits are unreliable and cannot be used to identify class members. *See* Opp. at 7
22 (describing class member identification as a “dispositive class identification problem” and an
23 “insurmountable obstacle”).

24 34. “Where the discovery misconduct has deprived the opposing party of key evidence
25 needed to litigate a contested issue, an order prohibiting the disobedient party from contesting that
26 issue . . . is appropriate.” *Shanghai Weiyi Int’l Trade Co. v. Focus 2000 Corp.*, 2017 WL 2840279,
27 at *11 (S.D.N.Y. June 27, 2017).

1 35. The Court finds that Plaintiffs’ request that the Court preclude Google from making
2 any arguments concerning the unreliability of the Incognito-detection bits is not warranted under
3 the facts of this case. However, as a result of its discovery misconduct, Google thwarted Plaintiffs’
4 efforts to fully understand the basis of Google’s class identification arguments, so it is now
5 “appropriate, based on these failures, to preclude [Google] from introducing further facts or
6 evidence in response to these issues” to the extent necessary to ensure that Google will not
7 impermissibly benefit from evidentiary gaps that it has created by refusing to comply with this
8 Court’s discovery orders. *Lanier v. San Joaquin Valley Offs. Ass’n*, 2016 WL 4764669, at *8 (E.D.
9 Cal. Sept. 12, 2016).

10 36. Accordingly, the Court orders that:

- 11 (1) Google may not object to or present argument against the timing of the development
12 and implementation of the three Incognito-detection bits at issue or the fact that
13 such bits were implemented. Google is not excluded from arguing against the
14 reliability of the three Incognito-detection bits in identifying class members.
- 15 (2) Google may not offer or rely on testimony from Chris Liao, Bert Leung, Mandy
16 Liu, or Quentin Fiard for any purpose.

17 37. This sanction is appropriate despite Google’s assertion that this will make it more
18 difficult for Google to oppose class certification. *Craftwood Lumber Co. v. Interline Brands, Inc.*,
19 2013 WL 4598490, at *13 (N.D. Ill. Aug. 29, 2013) (“Craftwood does not dispute that a preclusion
20 order would leave Interline without a basis for opposing class certification, but notes that this result
21 is of Interline’s own making. We agree. The sanction is harsh but warranted”).

22 38. This sanction is also consistent with the principle that the sanction should “serve as
23 a general deterrent in both the case at hand and other cases.” *Sas*, 2015 WL 12711646, at *10.
24 Google’s discovery misconduct cannot be encouraged, and this sanction will appropriately serve
25 as a deterrent both to Google and other parties in other cases.

B. A Jury Instruction As Modified by the Court Is Warranted

39. Plaintiffs also seek a jury instruction that “Google concealed and altered evidence regarding its ability to identify Incognito traffic.”

40. Plaintiffs have failed to show that Google altered evidence. This argument as set forth in the Motion was premised on Google’s use of the tool that selected only the 100 largest fields in producing a schema, as authorized by the Special Master. Motion at 6; *see also* FF ¶¶ 104-105. Although, as discussed above, Google should have disclosed the Incognito-detection bits to the Special Master in connection with the discussion of using the tool to producing schemas, Plaintiffs have not provided evidence that Google altered a schema produced by use of that tool.

41. By contrast, the Court finds that Google was grossly negligent in failing to turn over relevant evidence regarding its ability to identify Incognito traffic, including by violating the Court’s orders and failing to disclose the existence of the Incognito-detection bits through relevant documents and witnesses.

42. Rule 37(b)(2)(A) “authorizes a court to issue an adverse-inference jury instruction as a remedy when ‘bad faith or gross negligence has resulted in either the spoliation of evidence or failure to turn over relevant evidence.’” *First Fin. Sec., Inc. v. Freedom Equity Grp., LLC*, 2016 WL 5870218, at *3 (N.D. Cal. Oct. 7, 2016).

43. Google does not contest the Court’s authority to impose such a sanction, but it argues that jury instructions are unwarranted since “Plaintiffs had detailed discovery on the purportedly withheld topic months before showing any interest in pursuing it,” and that “once Plaintiffs did start asking questions, Google answered them.” Opp. at 25.

44. Google also suggests that only this Court will decide whether class members can be identified, and that a jury instruction is therefore inappropriate. Opp. 25. Plaintiffs argue that information about Google’s detection and logging of Incognito traffic bears on elements of Plaintiffs’ claims, such as the offensiveness of Google’s alleged misconduct for purposes of Plaintiffs’ invasion of privacy and intrusion upon seclusion claims, and is therefore relevant to issues that will be presented to the jury. Pls. Prop. Findings ¶ 43 (Conclusions of Law) (citing

1 *Davis v. Facebook, Inc.*, 956 F.3d 589, 602-04 (9th Cir. 2020)). On balance, the Court presently
 2 concludes that Google's discovery misconduct is primarily related to issues to be decided by the
 3 Court. It is premature to determine if the misconduct is relevant to issues for the jury.

4 45. The Court therefore concludes that Plaintiffs' requested jury instruction that
 5 "Google concealed and altered evidence regarding its ability to identify Incognito traffic" is not
 6 warranted or appropriate on the facts of this case.

7 46. However, if in the course of proceedings before the trial judge it is determined that
 8 Google's discovery misconduct is relevant to an issue before the jury, the Court finds the following
 9 jury instructions appropriate: (1) "Google failed to disclose to Plaintiffs the names of key Google
 10 employees responsible for developing and implementing Google's Incognito-detection bits"; and
 11 (2) "Google failed to disclose relevant data sources reflecting the use of the Incognito-detection
 12 bits."

13 **C. Plaintiffs Are Entitled To The Fees Paid In Connection With This Motion But**
 14 **Not The Fees Paid to Special Master Brush**

15 47. Plaintiffs argue that Google should be ordered to reimburse Plaintiffs for all fees
 16 they have paid and will pay to the Special Master as a monetary sanction. Motion (Dkt. 429-1) at
 17 22-23. Google counters that "[s]hould the Court grant Plaintiffs['] motion, it should award them
 18 compensation only for the time they spent preparing their Motion for Sanctions." Opp. at 25-26
 19 (citing Fed. R. Civ. P. 37(b)(2)(C)).

20 48. Having already decided to grant Plaintiffs' Motion, the Court is required to consider
 21 monetary compensation. "[T]he court must order the disobedient party, the attorney advising that
 22 party, or both to pay the reasonable expenses, including attorney's fees, caused by the failure,
 23 unless the failure was substantially justified or other circumstances make an award of expenses
 24 unjust." Fed. R. Civ. P. 37(b)(2)(C).

25 49. The Court concludes that Google's discovery misconduct was not "substantially
 26 justified" and that there are no "other circumstances [that] make an award of expenses unjust."

27 50. Federal Rule 37(b)(2)(C) requires the offending party to "pay the *reasonable*
 28 *expenses, including* attorney's fees, caused by the failure." Fed. R. Civ. Proc. 37(b)(2)(C)

(emphasis added); *see also Sali v. Corona Reg'l Med. Ctr.*, 884 F.3d 1218, 1225 (9th Cir. 2018) (affirming sanctions for costs associated with court-ordered deposition).

51. Here, Plaintiffs have failed to demonstrate that an award of all fees they paid to the Special Master is appropriate. Plaintiffs have not demonstrated that Google's compliance with the Court's prior orders would have significantly streamlined the Special Master process. The impact of Google's discovery misconduct on the Special Master proceedings is not subject to quantification because the proceedings regarding the production of data sources and identification of relevant fields were vast and covered many multiples of the logs and fields implicated in this dispute.

52. However, consistent with Rule 37, Google must pay all attorneys' fees and costs incurred by Plaintiffs in filing the Sanctions Motion, including expert consultant and witness fees. Within **14 days of the date this Order**, Plaintiffs must submit to the Court their request for reimbursement.

II. Federal Rule of Civil Procedure 37(c)

53. Plaintiffs' Motion does not mention that they seek sanctions under Rule 37(c). *See* Motion at 17, 19-23. Plaintiffs' first reference to sanctions under Rule 37(c) was in their Reply brief. Dkt. 535-1 at 11-12. Accordingly, as an initial matter the Court must consider whether Plaintiffs' request for sanctions under this Rule is appropriate.

54. Rule 37(c)(1) provides: "If a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless. In addition to or instead of this sanction, the court, on motion and after giving an opportunity to be heard:

(A) may order payment of the reasonable expenses, including attorney's fees, caused by the failure;

(B) may inform the jury of the party's failure; and

1 (C) may impose other appropriate sanctions, including any of the orders listed in Rule
2 37(b)(2)(A)(i)—(vi).”

3 Fed. R. Civ. Proc. 37(c)(1).

4 55. Federal Rule of Civil Procedure 26(e) in turn requires that any party “who has
5 responded to an interrogatory, request for production, or request for admission ... must supplement
6 or correct its disclosure or response...in a timely manner if the party learns that in some material
7 respect the disclosure or response is incomplete or incorrect, and if the additional or corrective
8 information has not otherwise been made known.” Fed. R. Civ. Proc. 26(e)(1)(A).

9 56. “Rule 37(c)(1) gives teeth to” Rule 26’s mandatory disclosure requirements “by
10 forbidding the use at trial of any information required to be disclosed by Rule 26(a) [or Rule 26(e)]
11 that is not properly disclosed.” *Rodriguez v. Akima Infrastructure Services, LLC* , No. 16-cv-
12 03607-PJH, 2019 WL 5212968, at *2 (Oct. 16, 2019) (quoting *Yeti by Molly, Ltd. v. Deckers*
13 *Outdoor Corp.*, 259 F.3d 1101, 1106 (9th Cir. 2001)). The Advisory Committee notes to Rule
14 37(c)(1) state that this section provides a “self-executing” and “automatic” sanction for failure to
15 comply with Rules 26(a) or (e). 1993 and 2000 Adv. Cmte. Notes to Rule 37(c)(1).

16 57. Because of the self-executing and automatic nature of the sanction available under
17 Rule 37(c)(1), and because Plaintiffs prominently raised the issue of Google’s inadequate
18 interrogatory responses in its opening brief (*see* Motion at 2, 8, 14-15, 19) and Google had an
19 opportunity to respond in its Opposition and at the hearing, the Court concludes that it may
20 consider whether Rule 37(c) provides an additional basis for imposing sanctions, notwithstanding
21 the fact that Plaintiffs did not specifically cite Rule 37(c) in their Motion.

22 58. Rule 37(c)(1) “prohibits the use of improperly disclosed evidence.” *Merchant v.*
23 *Corizon Health, Inc.*, 993 F.3d 733, 740 (9th Cir. 2021) (citing *Yeti*, 259 F.3d at 1106). “As the
24 Rule plainly states, litigants can escape the ‘harshness’ of exclusion only if they prove that the
25 discovery violations were substantially justified or harmless.” *Id.* “The party facing sanctions bears
26 the burden of proving that its failure to disclose the required information was substantially justified
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1 or is harmless.” *R&R Sails, Inc. v. Ins. Co. of Penn.*, 673 F.3d 1240, 1246 (9th Cir. 2012). Courts
2 have “particularly wide latitude” to issue sanctions under Rule 37(c)(1). *Yeti*, 259 F.3d at 1106.

3 59. “In the ordinary case, violations of Rule 26 may warrant evidence preclusion.” *R&R*
4 *Sails*, 673 F.3d at 1247. If evidence preclusion “amount[s] to dismissal of a claim,” the district
5 court is required to consider whether the claimed noncompliance involved willfulness, fault, or
6 bad faith.” *Id.*

7 60. Here, precluding Google from offering or relying on testimony of certain
8 employees who were not identified in response to Plaintiffs’ Interrogatory No. 4 would not
9 “amount[] to dismissal of a claim” and thus the court is not required to make a finding of
10 willfulness, fault, or bad faith. *See Yeti*, 259 F.3d at 1106.

11 61. Sanctions are appropriate under Rule 37(c) because Google violated Rule 26(e)
12 when it failed to disclose Chris Liao, Bert Leung, Mandy Liu, and Quentin Fiard in response to
13 Plaintiffs’ interrogatory asking Google to identify employees “with responsibility for or
14 knowledge of . . . Google’s collection of and use of data in connection with users’ activity while
15 in a private browsing mode.” *See FF* ¶¶ 55-56. Google never amended that Interrogatory response.

16 62. Google has failed to explain why Google omitted these employees from its
17 interrogatory response. With respect to Mr. Fiard, Google only identified him on March 10, after
18 the close of fact discovery. And, as discussed above, Google’s failure to identify these witnesses
19 was not harmless because it undermined Plaintiffs’ ability to obtain full discovery into these
20 Incognito-detection bits. *See FF* ¶ 170. Accordingly, Google has failed to carry its burden of
21 showing that its failure to disclose the required information is “substantially justified or harmless.”
22 Fed. R. Civ. P. 37(c)(1). Based on Federal Rule 37(c), the Court now precludes Google from
23 offering or relying on any testimony from Chris Liao, Bert Leung, Mandy Liu, or Quentin Fiard,
24 who were not identified in response to Plaintiffs’ Interrogatory No. 4.

25 63. Google is also precluded from offering or relying on its Supplemental Response to
26 Interrogatory No. 35. *See Dkt.* 528-4, 528-5. This supplemental interrogatory response was served
27 after Plaintiffs filed this Motion and after the hearing on the Motion, and after the close of
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1 discovery. In its opposition to Plaintiffs’ second request to supplement the Motion to request
2 preclusion of the supplemental interrogatory response, Google states that “[h]ad Plaintiffs
3 provided Google a reasonable time to respond [to their request to supplement the Motion],
4 Plaintiffs would have been aware that Google is willing to amend the supplemental interrogatory
5 response to remove the narrative response and instead incorporate by reference the relevant
6 sanctions briefing and testimony” which would have “made clear nothing new is being added to
7 the record.” Dkt. 585 at 2. Under the circumstances of this case, the Court finds this supplemental
8 interrogatory response to be untimely.

9 64. In addition, Rule 37(c)(1)(A)-(B) permits the court to “order payment of the
10 reasonable expenses, including attorney's fees, caused by the failure”; “inform the jury of the
11 party’s failure”; and “impose other appropriate sanctions, including any of the orders listed in Rule
12 37(b)(2)(A)(i)—(vi).”

13 65. Google’s failure to identify relevant employees in response to Plaintiffs’
14 interrogatory (Liao, Leung, Liu, and Fiard) provides independent support for the Court’s order
15 requiring Google to reimburse Plaintiffs for all fees paid in bringing the present Motion. For the
16 reasons discussed above, Plaintiffs are not entitled to recover the fees paid to the Special Master.

17 **III. Federal Rule of Civil Procedure 37(e)**

18 66. Plaintiffs’ Motion did not mention that they seek sanctions under Rule 37(e). *See*
19 Motion at 17, 19-23. Plaintiffs’ first reference to sanctions under Rule 37(e) was in their Reply
20 brief. Dkt. 535-1 at 12. Accordingly, as an initial matter the Court must consider whether Plaintiffs’
21 request for sanctions under this Rule is appropriate.

22 67. Federal Rule of Civil Procedure 37(e) provides: “If electronically stored
23 information that should have been preserved in the anticipation or conduct of litigation is lost
24 because a party failed to take reasonable steps to preserve it, and it cannot be restored or replaced
25 through additional discovery, the court . . . upon finding that the party acted with the intent to
26 deprive another party of the information’s use in the litigation may” “presume that the lost
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information was unfavorable to the party” or “instruct the jury that it may or must presume the information was unfavorable to the party.”

68. Unlike Rule 37(c), discussed above, Rule 37(e) is not by its terms or as described in the Advisory Committee Notes or case law a “self-executing” or “automatic” sanction. Moreover, Rule 37(e) requires an inquiry into matters such as whether electronic data was lost, whether the party had a duty to preserve the data, whether the data can be restored or replaced, and whether the party acted with the intent to deprive another party of the ability to use the information in the litigation. Fed. R. Civ. Proc. 37(e). In light of these considerations, the Court concludes that it would not be appropriate to consider Plaintiffs’ belated request for Rule 37(e) sanctions because they failed to give notice in the Motion that they were seeking such sanctions, and therefore Google did not have an opportunity to respond and the record on the relevant factors has not been fully developed.

IV. The Court’s Inherent Authority

69. A court possesses inherent authority to award monetary and other sanctions where a party acts in bad faith, and where this authority has not been displaced by statute or by a rule-based sanctioning scheme. *Chambers v. NASCO, Inc.*, 501 U.S. 32, 45-48 (1991); *see also Goodyear Tire & Rubber Co. v. Haeger*, 137 S. Ct. 1178, 1186 (2017). These powers, however, “must be exercised with restraint and discretion.” *Chambers*, 501 U.S. at 44.

70. The bad-faith requirement sets a “high threshold,” *Primus Auto. Fin. Servs., Inc. v. Batarse*, 115 F.3d 644, 649 (9th Cir.1997), which may be met by willful misconduct, or recklessness combined with “frivolousness, harassment, or an improper purpose.” *Fink v. Gomez*, 239 F.3d 989, 993–94 (9th Cir.2001). It is the moving party’s burden to demonstrate that the party against whom it seeks sanctions acted with the requisite bad faith or improper purpose. *See Burnett v. Conseco, Inc.*, 87 F.Supp.3d 1238, 1248-49 (N.D. Cal. 2015).

71. Plaintiffs argue that to the extent Google’s discovery misconduct in terms of representations made to the Court and the Special Master does not qualify as a violation of any discovery order, the Court should sanction that misconduct under its inherent authority. Pls. Prop.

1 Findings CL ¶¶ 67-78 (Conclusions of Law). In support of their request for sanctions under the
2 Court's inherent authority, Plaintiffs cite Google's failure to disclose any of the Incognito-
3 detection bits to the Court in connection with the April 2021 preservation dispute, and the July
4 2021 dispute regarding production of data lacking the X-Client Data Header. *Id.*

5 72. There was no basis in law for Google to fail to disclose evidence concerning the
6 Incognito-detection bits in connection with the April 2021 preservation dispute and the July 2021
7 dispute regarding production of data lacking the X-Client Data Header. However, Plaintiffs have
8 failed to carry their burden of showing that Google's failures in these regards resulted from either
9 bad faith or recklessness with an improper purpose. Accordingly, the Court declines to award
10 sanctions under its inherent authority.